

AGENDA
Midwest Reliability Organization
Standards Committee
St. Paul Conference Center
August 25, 2005 – 10:00 AM

- 1. Welcome**
 - a. Determination of Quorum
 - b. Additions to the Agenda

- 2. Review Policy and Procedure 4**

MRO and NERC Committee Membership Policy outlines the member responsibilities and provisions of the policy, along with the Standards of Conduct and Anti-trust Guidelines which must be presented before each meeting of MRO committees, subcommittees, and other working groups.

- 3. Remarks from Chairman**
 - a. Updates from MRO Board
 - b. Updates from NERC

- 4. Approval of minutes**
 - a. May 26, 2005 meeting
 - b. July 11, 2005 conference call
 - c. July 21, 2005 special meeting

- 5. Standards Process Manager's report – Ben Deutsch**
 - a. Augmentation Standards Status
 - i. Drafting Team status
 - ii. Summary of Drafting Team actions
 - b. SAR postings
Standards Process Modifications
 - c. **Action Item:**
Motion to adopt recommendations for drafting team to draft revised Standards Process Manual
 - d. Ballot pool registration
 - e. MRO Standards process software status report
 - i. Ballot Body registration
 - ii. Business Rules

- 6. Procedures assignments – Larry Larson or Ben Deutsch**
 - a. Under Frequency Load Shedding
 - b. Disturbance Monitoring Equipment Locations
 - c. MAPP Members Reliability Criteria and Study Procedures Manual
 - d. Transition to MRO standards and procedures

- 7. Reliability First Corporation (RFC) update** – Bruce Balmat,
RFC Treasurer and MAAC Executive and Director – Electric Standards
- 8. MRO Voting Procedures Discussion on NERC Issues** – Larry Larson
- 9. Reliability Handbook Discussion** – Larry Larson or Ben Deutsch
- 10. NSRS Action Item Requests** – Darrick Moe
 - a.** Current activities status
 - b. Action Item:**
Motion to approve wording changes to NSRS Scope document
 - c. Action Item:**
Motion to increase size of NSRS subcommittee
- 11. NERC Reports** (*Note: Limited NERC meetings have taken place*):
 - a.** Standards Evaluation Subcommittee report – Ron Mazur
 - b.** Interchange Subcommittee – Al Boesch
 - c.** Planning Standards Task Force – Greg Pieper
 - d.** Resources Subcommittee – Alan Oneal
 - e.** Transmission Subcommittee – Darrick Moe
 - f.** Resource Issues Subcommittee – Bill Head
 - g.** CCC update – Gerry Steffens
 - h.** NERC Drafting Team Members for MRO Region
- 12. Review 2005 Activities list**
- 13. Other Business**
 - a.** Preliminary Budget Discussion
 - b.**
- 14. Next meeting**
Nov 10, 2005 - St Paul Conference Center - 10:00am CDT
- 15. Adjourn**

**Agenda 1.
Welcome**

**Agenda 1.a.
Determination of Quorum**

**MRO Standards Committee
Roster**

Name	Sector	Member	Term	Roll Call
Dave Acton	IOU>	ALT	Dec. 05	
Peter Burke	TSO	ATCo	Dec.07	
Dave Kempf	C	GRE	Dec. 05	
Gerry Steffens	MU	RPU	Dec. 06	
Al Boesch	C	NPPD	Dec. 07	
Larry Larson Chair	IOU<	OTP	Dec. 07	
Wayne Guttormson	CU	SPC	Dec. 06	
Lloyd Linke	FPMA	WAPA	Dec. 07	
Tim Noeldner	MU	WPPI	Dec. 05	
OPEN 2 years	GPM		Dec.06	
Ben Deutsch, Secretary		MRO		
Joe Knight, Alt. Secretary		MRO		

Agenda 1.b.
Additions to the Agenda

Agenda 2.
Review Policy and Procedure 4

Barbara L. Moses

From: Sandy L. Humenansky [sl.humenansky@mappcor.org] on behalf of Daniel P. Skaar [dp.skaar@mappcor.org]
Sent: Tuesday, July 19, 2005 1:37 PM
To: mrocc@midwestreliability.org; mro-dispute@midwestreliability.org; mro-assess@midwestreliability.org; mro-standards@midwestreliability.org; mro-board@midwestreliability.org; mro-board-alternate@midwestreliability.org
Subject: [mrocc] Anti-Trust and Standards of Conduct Guidelines
Attachments: Policy and Procedure 4 MRO_NERC Committee Membership.pdf

Good Afternoon,

The MRO region has instituted anti-trust and standards of conduct guidelines to assure that the members of MRO committees, subcommittees, staff and other working groups, including those individuals representing the MRO at NERC, operate in a fair and non-discriminatory manner.

The attached Policy and Procedure 4: MRO and NERC Committee Membership Policy outlines the member responsibilities and provisions of the policy, along with the Standards of Conduct and Anti-trust guidelines which must be presented before each meeting of MRO committees, subcommittees, and other working groups. Please make these reminders a permanent part of your meeting agenda.

If you have any questions, please feel free to give me a call.

Regards,
Dan

<<Policy and Procedure 4 MRO_NERC Committee Membership.pdf>>

You are currently subscribed to mrocc as: bl.moses@mappcor.org.
To unsubscribe send a blank email to leave-mrocc-8516A@midwestreliability.org

Midwest Reliability Organization
Policy and Procedure 4: MRO and NERC Committee Membership Policy

Objective

The objective of this Policy and Procedure is to assure that the members of Midwest Reliability Organization (MRO) committees, subcommittees, and other working groups, including those individuals representing the MRO at NERC, operate in a fair and non-discriminatory manner which places the interests of the MRO and regional reliability at the highest level of consideration of matters.

Policy

Members of the MRO committees, subcommittees and other organizational working groups, including those individuals representing the MRO at NERC, should act in a fair and non-discriminatory manner in their discharge of responsibilities for maintaining regional reliability of the interconnected transmission system. Members must assure that the interests of regional reliability are the foremost interest in any committee, subcommittee, or other organizational working group.

Responsibilities

In furtherance of the above policy, guiding principles for member representative:

- (1) This policy is not intended to exclude the advocacy of sector interests. The MRO encourages the involvement of sector representation within its diverse membership to nurture balanced and fair judgments and practices. Committees, subcommittees, task forces, and other working groups within the MRO are also expected to exercise authority consistent with the purposes of the MRO as directed by the MRO Board.
- (2) At NERC meetings, the MRO representative should address issues from a MRO perspective and strive to be prepared prior to any NERC meeting on the MRO positions on key matters.
 - a. For NERC Stakeholder and Board of Trustee matters, the President and/or Chair should be consulted.
 - b. For other NERC standing committees or other NERC organizational working groups, the appropriate MRO chair or committee secretary should be contacted.

Provisions

- (1) Each meeting of a MRO committee, subcommittee or other organizational working group must include an "anti-trust compliance guideline" (Appendix 4-1).
- (2) For individuals representing the MRO at NERC meetings and functions, the individual should provide a brief report, which includes the following:
 - Actions taken by the NERC Body.
 - Direction provided by the MRO organizational working group or committee.
 - Anticipated future actions by the NERC Body.

Please refer to Appendix 4-2 NERC Report, which may be used for this purpose. *For expense reimbursements, please refer to Policy 2-Expense Reimbursements.*



MIDWEST RELIABILITY ORGANIZATION ANTITRUST and STANDARDS OF CONDUCT GUIDELINES

I. GENERAL

It is the MRO'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 MRO participant and employee who may in any way affect MRO'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 MRO 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 MRO policy contained in these guidelines is stricter than the applicable antitrust laws. Any MRO participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether MRO's antitrust compliance policy is implicated in any situation should consult the MRO President or the MRO's counsel.

II. PROHIBITED ACTIVITIES

Participants in MRO activities (including those of its subcommittees and subgroups) should refrain from the following when acting in their capacity as participants in MRO activities (e.g. at MRO 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 the MRO (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 the MRO (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 meetings and in other related communications.

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

No decisions should be made or any actions taken in MRO 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 MRO reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in MRO 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 markets 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 MRO, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meeting.

Any other matters that do not clearly fall within these guidelines should be reviewed with MRO counsel or the MRO President before being discussed.



IV. Standards of Conduct

FERC Standards of Conduct prohibit MRO committee, subcommittee and task force members from sharing non-public transmission sensitive information with anyone who is either an affiliate merchant or could be a conduit of information to an affiliate merchant.

Transmission availability, capacity, maintenance or other operating or reliability information must not be shared with merchants through any method other than publicly, through the Open Access Same-Time Information System (OASIS). Some entities interconnected within MRO have signed a Confidential Data Access Agreement (CDAA) that includes names of employees who have been trained in FERC Standards of Conduct, understand the information sharing prohibitions, and are therefore authorized to receive non-public transmission sensitive information. MRO communications to interconnected entity employees may include non-public transmission sensitive information only if all such employees present are named on CDAA(s).

As the contractor for the MRO, MAPPCOR provides certain services to the MRO. In order to assist those MRO members either required by the Federal Energy Regulatory Commission ("Commission" or "FERC") to comply with, or who voluntarily adhere to, the Commission's Standards of Conduct as outlined in Order Nos. 2004, 2004-A, 2004-B, 2004-C, and 2004-D, Part 358 of the Commission's Regulations, and other applicable Commission orders and decisions, MAPPCOR will conduct its business to conform with such Standards of Conduct. The obligations and responsibilities of MAPPCOR employees necessary to comply with FERC's Standards of Conduct are set forth in the MAPPCOR Employee Handbook.

Anti-trust Reminder

Participants in Midwest Reliability Organization meeting activities must refrain from the following when acting in their capacity as participants in Midwest Reliability Organization activities (i.e. meetings, conference calls, and informal discussions):

- Discussions involving pricing information; and
- Discussions of a participant's marketing strategies; and
- Discussions regarding how customers and geographical areas are to be divided among competitors; and
- Discussions concerning the exclusion of competitors from markets; and
- Discussions concerning boycotting or group refusals to deal with competitors, vendors, or suppliers.



Standards of Conduct Reminder

FERC Standards of Conduct prohibit MRO staff, committee, subcommittee and task force members from sharing non-public transmission sensitive information with anyone who is either an affiliate merchant or could be a conduit of information to an affiliate merchant.



Agenda 3.
Remarks from the Chairman

Agenda 3.a.
Update from MRO Board

Barbara L. Moses

From: Sandy L. Humenansky [sl.humenansky@mppcor.org]
Sent: Wednesday, July 27, 2005 10:19 AM
To: mro@midwestreliability.org
Subject: [mro-assess] [mro] MEETING HIGHLIGHTS: July 15, 2005 MRO Board Conference Call
Attachments: 07 15 confcall.pdf

Good Morning,

Attached are the highlights from the July 15, 2005 MRO Board of Directors meeting. A copy of these highlights were posted on the MRO website July 19 and can be downloaded at <http://www.midwestreliability.org/documents/Board%20of%20Directors/Highlights/2005/07%2015%20confcall.pdf>.

Thank you

Sandy

<<07 15 confcall.pdf>>

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Sandy Humenansky, Administrative Assistant  
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July 19, 2005

**Midwest Reliability Organization Members**

**Subject:** July 15, 2005 Midwest Reliability Organization Board of Directors Meeting Highlights

Dear Midwest Reliability Organization Members,

Below are meeting highlights from the July 15, 2005 meeting of the board:

- Approved the minutes of the June 2, 2005 Board of Directors meeting. To view the approved minutes, click on [http://www.midwestreliability.org/documents/Board%20of%20Directors/Minutes/2005/am\\_bod%2006%2002%2005.pdf](http://www.midwestreliability.org/documents/Board%20of%20Directors/Minutes/2005/am_bod%2006%2002%2005.pdf).
- Appointed Robert Coish, Manitoba Hydro, to the Compliance Committee as the Canadian Sector representative. Mr. Coish fills the vacancy created by the resignation of Mr. Gerry Rheault.
- Approved the MAPPCOR – MRO Service Agreement extension. This extension runs through December 2007.

For further details, please refer to [www.midwestreliability.org](http://www.midwestreliability.org).

Sincerely,

Daniel P. Skaar, President  
Midwest Reliability Organization, Inc.

DPS:slh

C: MRO Board of Directors  
William Head

**Agenda 3.b.**  
**Updates of NERC**

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Date: July 6, 2005

To: MRO Board of Directors

From: Larry Larson

Re: NERC OC report for June 8&9, 2005 meeting

### **Summary of Actions Taken by NERC OC**

Please refer to the attached highlights of the OC meeting.

The new OC Subcommittee Organization and Procedures document will likely include representation from each of the regions on the subcommittees. The OC is reorganizing the Transmission Subcommittee under the new procedure early because of the expanded scope of the group. The current members' terms will expire on August 31 and the new members will take over on September 1.

The revised Operating Reliability Confidentiality Agreement is expected to be approved at the August 1 & 2 Board of Trustees meeting. Then everyone will probably have to re-sign.

Best Practices differ from the Examples of Excellence coming out of the NERC reviews in that they need to be proven to work consistently and effectively across organizations and be widely accepted. The task force needs to determine if the costs of identifying best practices are warranted. Another big concern is that they may become requirements.

The Operator Certification continuing education program will likely start sometime in 2006.

The goal to balance the Eastern Interconnection inadvertent through March 31, 2005 by June 30 has been met.

The IROL reference document field test expired on June 9, 2005.

### **Summary of Direction Provided by the MRO Board of Directors**

I voted on favor of all motions presented at the OC meeting.

### **Next Steps**

The MRO needs to name a member to the re-formed Transmission Subcommittee by July 1.

The MRO needs to follow-up on the blackout recommendations approved by the OC.

**Agenda 4.**  
**Approval of Minutes**

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**Agenda 4.a.**  
**May 26, 2005**

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**DRAFT MINUTES**  
**MIDWEST RELIABILITY ORGANIZATION**  
**STANDARDS COMMITTEE**  
**St Paul Conference Center - St. Paul, MN**  
May 26, 2005 – 10:00am

**1. Welcome and Remarks from Chairman**

Chair Larson called the meeting of the Midwest Reliability Organization (MRO) Standards Committee (SC) to order at 10:00 a.m. Members were polled about departure time and adjournment was planned at 3:00 pm. Mr. Larson introduced Mr. Ben Deutsch, the new MRO Standards Process Manager. The following Committee Members and Guests were present:

**Members:**

Larry Larson, OTP, Chair

Ben Deutsch, MRO, Secretary

Dave Acton, ALT

Al Boesch, NPPD

Wayne Guttormson, SPC

Lloyd Linke, WAPA, Vice Chair

Peter Burke, ATC

Dave Kempf, GRE

Gerry Steffens, RPU

Tim Noeldner, WPPI

**Guests:**

Claire Moeller, MISO

Shel Berg, MRO

Joe Knight, MRO

Ron Mazur, MH

Larry Brusseau, MRO

Babs Moses, MRO

**2. Review Agenda**

*a. Additional comments from compliance committee were added under Tab 8.*

*b. Agenda item Tab 11 was modified.*

The agenda is attached as Exhibit #1.

**3. Comments from the Chair**

*a. Updates from MRO Board of Directors (BOD)*

Chair Larson provided an update from the MRO BOD. Mr. Deutsch will check to see if the MRO Conduct of Representatives of MRO Policy has been posted.

*b. Procedure to Designate Alternates*

The procedure to designate an alternate is to send Mr. Deutsch and Mr. Larson notification the member cannot attend and who is the alternate. The alternate will not be added to the exploder list but, after notification, meeting information will be sent for that particular meeting.

*c. E-mail Lists*

A SC members only exploder list will include only members. Other interested parties could be added to the general list. Finalized minutes are to be sent to the SC exploder list and posted on the web site. Mr. Ron Mazur, as the NERC SES Representative, and Mr. Darrick Moe with subcommittee chairs can be added to the SC members list.

*d. Standard Drafting Team*

The MRO – Augmentation Drafting Team e-mail list has been established.

**4. Approval of Minutes -**

*a. February 24 meeting:*

Chair Larson called for discussion on the minutes of the February 24, 2005 Standards Committee meeting.

***Upon motion duly made and seconded, the Standards Committee unanimously approved the February 24, 2005 minutes as amended.***

b. *March 8 and April 22 Conference Calls*

Chair Larson called for discussion on the minutes of the March 8, 2005 and April 22, 2005 conference call meetings.

*Upon motion duly made and seconded, the Standards Committee unanimously approved both the March 8, 2005 and April 22, 2005 minutes as written.*

**5. Standards Process Manger's Report**

a. *MRO Website Postings*

Mr. Knight updated the Committee on the status of the MRO commenting as it relates to NERC standards activities.

b. *Standards Drafting Team*

i. SAR Posting

Mr. Deutsch reported on the status of SAR postings. After committee discussion, Chair Larson asked the NERC Standards Review Subcommittee to send comments to NAESB on TLR Option 3A business practice and to FERC on the ATC components NOI.

ii. Approval of Additional Members

Mr. Deutsch, as SPM, recommends that the Standards Committee endorse the following appointments: Rob Thorson (MGE) Operations, Dave Acton (ALT) Operations, Jim Maenner (WPS) Operations, Hal Haugom (MGE) Operations, Tony Jankowski (WE) Operations, Pam Oreschnick (XEL) Operations, and Gordon Pietsch (GRE) Operations. Chair Larson noted that several committee members were on the list and expressed appreciation for their involvement.

*Upon motion duly made and seconded, the Standards Committee unanimously endorsed all the additions to the Augmentation Drafting Team.*

iii. Status Report

Mr. Deutsch reported on the Augmentation Drafting Team and their assignments. The next meeting is June 10, 2005.

c. *MRO Standards Process Software Status Report and Ballot Pool Registration*

Mr. Deutsch reported on the progress of the Ballot Pool Registration. The MRO is developing a web-based program which is being phased into operation over the next several months.

Important target dates include:

- June 2005 Registration of Ballot Body commences
- July 2005 MRO Augmentations to Version 0 standards posted for comments
- October 2005 Balloting on the commences
- December 2005 MRO Augmentations submitted to the Board of Directors
- January 2006 Implementation of the MRO Augmentations provided BOD adopts

**Action Item:** Mr. Knight will find where the process manual is posted on the website and notify the committee members. The MRO Standards Process Manual is located on the MRO website at the following link ([http://www.midwestreliability.org/policies\\_procedures.html](http://www.midwestreliability.org/policies_procedures.html))

**6. Large Regional Reliability Council Update**

Mr. Deutsch reported on the Large Regional Reliability Council.

**7. NERC Standards Evaluation Subcommittee Report**

Mr. Mazur reported as noted in Agenda Tab 10.

**8. MRO Procedures-**

The committee reviewed the procedures attached as Exhibit #2. Assignments for each identified NERC required procedure were made. Two, UFLS and Disturbance Monitoring Equipment, were assigned to go through the standards process and will be included in the Augmentation Drafting Team work. Chair Larson will contact the board chairs and discuss the assigned procedures list before the September 20, 2005 meeting.

**Action Item:** Ben D will draft an updated list with the SC comments and assignments.

**9. MRO Standards Process Document Proposed Changes**

Chair Larson suggested, and the committee agreed, to review Mr. Noeldner's suggested changes to manual via conference call on July 11, 2005, 1:30 to 4:30 pm.

**10. Compliance**

*a. NERC Compliance and Certification Committee Update*

Mr. Steffens gave an update on the Compliance and Certification Committee.

*b. MRO Regional Compliance Enforcement Plan 2005*

Mr. Berg reported on the 2005 Plan. Chair Larson, at the request of Mr. Steffens, asked for consensus from the committee on having members' expenses reimbursed for being involved this is process. The committees' consensus was that members should be reimbursed.

**11. Review 2005 Activities List**

The committee reviewed and corrected the activities list as shown in Exhibit #3.

**12. Other Items**

**13. Next meetings**

*a. July 11, 2005 Conference Call*

*b. August 25, 2005 St Paul Conference Center 10:00AM*

*c. November 10, 2005 St Paul Conference Center 10:00AM*

**14. Adjourn**

The members had no further business, so Chairman Larson adjourned the meeting at 3:08 pm.

Prepared and Submitted by:

Babs Moses

Reviewed by Ben Deutsch, Secretary

MRO Standards Committee

**MEETING AGENDA**  
**MIDWEST RELIABILITY ORGANIZATION**  
**STANDARDS COMMITTEE**  
St Paul Conference Center – St. Paul, MN  
May 26th, 2005 – 10:00am

|                                                                  |     |
|------------------------------------------------------------------|-----|
| 1) Welcome and Introductions                                     | Tab |
| 2) Review agenda                                                 | 1   |
| 3) Remarks from Chairman                                         |     |
| a) Updates from MRO Board                                        |     |
| b) Procedure to designate alternate                              |     |
| c) E-mail lists                                                  |     |
| i) Standards Committee - general                                 |     |
| ii) Standards Committee - members only                           |     |
| iii) Standard Drafting Team                                      |     |
| 4) Approval of minutes                                           |     |
| a) February 24 meeting                                           | 2   |
| b) March 8 conference call                                       | 3   |
| c) April 22 conference call                                      | 4   |
| 5) Standards Process Manger's report- Ben Deutsch                |     |
| a) MRO Website postings                                          | 5   |
| b) Standards Drafting Team                                       | 6   |
| i) SAR posting                                                   |     |
| ii) Approval of additional                                       | 7   |
| iii) Status report                                               |     |
| c) Ballot pool registration                                      | 8   |
| d) MRO Standards process software status report                  | 8   |
| 6) LRRC update- Ben Deutsch                                      | 9   |
| 7) NERC Standards Evaluation Subcommittee report- Ron Mazur      | 10  |
| 8) MRO Procedures- Al Boesch and Wayne Guttormson                | 11  |
| a) Identify responsibilities                                     |     |
| 9) MRO Standards Process Document proposed changes- Tim Noeldner | 12  |
| a) NERC Standards Process changes                                |     |
| 10) Compliance                                                   |     |
| a) CCC update- Gerry Steffens                                    | 13  |
| b) MRO Regional Compliance Enforcement Plan 2005- Shel Berg      | 14  |
| 11) Review 2005 Activities list                                  | 15  |
| 12)                                                              | 16  |
| 13) Other Items                                                  |     |
| 14) Next meetings                                                |     |
| a) Aug 25, 2005 St Paul Conference Center 10:00AM                |     |
| b) Nov 10, 2005 St Paul Conference Center 10:00AM                |     |
| 15) Adjourn                                                      |     |

**Exhibit #2.**

| NERC Standard                                        | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Comment                                                                                                                                              | Procedure, Process or Standard                                  | RAC Comments            | Who assigned to:                                                     |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------|----------------------------------------------------------------------|
| <b>BAL-002-0</b><br>Disturbance Control Performance  | R2. Each Regional Reliability Organization, sub-Regional Reliability Organization or Reserve Sharing Group shall specify its Contingency Reserve policies, including:(See standard for details)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | The GRSP Handbook addresses the requirements for contingency reserves. The 40% criteria is a good candidate for a Regional standard.                 | Standard - The reserve sharing pools establish this in the MRO. | MAPP GRSP and MAIN Pool | Applies to Reserve Sharing Pool with possible exception of 40% rule. |
| <b>Standard BAL-006-0</b><br>Inadvertent Interchange | R.5 Adjacent Balancing Authorities that cannot mutually agree upon their respective Net Actual Interchange or Net Scheduled Interchange quantities by the 15th calendar day of the following month shall, for the purposes of dispute resolution, submit a report to their respective Regional Reliability Organization Survey Contact. The report shall describe the nature and the cause of the dispute as well as a process for correcting the discrepancy.                                                                                                                                                                                                                                                                                                                                                                                           | Is the MRO or MAPP submitting the summary                                                                                                            | Process                                                         | MRO Staff               | MRO Staff. Staff is doing surveys now.                               |
| <b>EOP-004-0</b><br>Disturbance Reporting            | R1. Each Regional Reliability Organization shall establish and maintain a Regional reporting procedure to facilitate preparation of preliminary and final disturbance reports.<br><br>R5. The Regional Reliability Organization shall track and review the status of all final report recommendations at least twice each year to ensure they are being acted upon in a timely manner. If any recommendation has not been acted on within two years, or if Regional Reliability Organization tracking and review indicates at any time that any recommendation is not being acted on with sufficient diligence, the Regional Reliability Organization shall notify the NERC Planning Committee and Operating Committee of the status of the recommendation(s) and the steps the Regional Reliability Organization has taken to accelerate implementation | This is addressed in the reliability MAPP Reliability Handbook Appendix 5F – MAPP Disturbance Reporting. This appendix needs updating to fit the MRO | Procedure                                                       | MRO Staff               | MRO Staff put together procedures. This was in MAPP Handbook         |

| NERC Standard                                                                                        | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Comment                                                                                                                                                                                                                                                                           | Procedure, Process or Standard                                                                                                                                                                                                  | RAC Comments                            | Who assigned to:                                                                                                                                    |
|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>EOP-007-0</b><br/>Establish, Maintain, and Document a Regional Blackstart Capability Plan.</p> | <p>R1. Each Regional Reliability Organization shall establish and maintain a system BCP, as part of an overall coordinated Regional SRP. The Regional SRP shall include requirements for verification through analysis how system blackstart generating units shall perform their intended functions and shall be sufficient to meet SRP expectations. The Regional Reliability Organization shall coordinate with and among other Regional Reliability Organizations as appropriate in the development of its BCP. The BCP shall include: (See standard for details)</p> | <p>Although the power system restoration plan identifies blackstart units it does not address all of the details of the standard. The MRO should establish some requirements.</p>                                                                                                 | <p>Standard - Could this be a procedure?</p>                                                                                                                                                                                    | <p>MRO Staff</p>                        | <p>MRO Staff. Post this and have everyone comment. It's not a standard but has standard quality. It s procedure/process for everyone to follow.</p> |
| <p><b>Standard FAC-004-0</b> — Methodologies for Determining Electrical Facility Ratings</p>         | <p>R1. The Transmission Owner and Generator Owner shall each document the methodology (ies) used to determine its electrical equipment and Facility Ratings. Further, the methodology (ies) shall comply with applicable Regional Reliability Organization requirements. The documentation shall address and include (See standard for details)</p>                                                                                                                                                                                                                       | <p>Although this standard references Regional requirements there is not a standard that requires the RRO to establish facility rating methodology.</p>                                                                                                                            | <p>Nothing is required but a procedure could generated if necessary.</p>                                                                                                                                                        | <p><b>MRO, MRO and MISO members</b></p> | <p><b>MRO, MRO and MISO members -</b></p>                                                                                                           |
| <p><b>Standard MOD-001-0</b> — Documentation of TTC and ATC Calculation Methodologies</p>            | <p>R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional TTC and ATC methodology. (Certain systems that are not required to post ATC values are exempt from this standard.) The Regional Reliability Organization's TTC and ATC methodology shall include each of the following nine items, and shall explain its use in determining TTC and ATC values:</p>                                                                                                                                                 | <p>MAPP's methodology is described in the Reliability Handbook: MAPP Region Total and Available Transfer Capability Methodology(Appendix 6A – Subsection A). The Methodology will need to be reviewed to see if it contains all of the components identified in the standard.</p> | <p>Sounds like a standard way of doing something. However it does not sound like the typical standard because it is a joint process of development. If everyone is expected to use the say method it sounds like a standard</p> | <p><b>MRO and RTC</b></p>               | <p>This doesn't have to be assigned to anyone unless there is a plan</p>                                                                            |

| NERC Standard                                                                          | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Comment                                                                                                                                                                                                                                                               | Procedure, Process or Standard                                                                                                                                                                                           | RAC Comments         | Who assigned to:                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard MOD-004-0</b> — Documentation of Regional CBM Methodologies                | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional CBM methodology. The Regional Reliability Organization's CBM methodology shall include each of the following ten items, and shall explain its use in determining CBM value. Other items that are Regional Reliability Organization specific or that are considered in each respective Regional Reliability Organization methodology shall also be explained along with their use in determining CBM values. | MAPP's methodology is described in the Reliability Handbook: MAPP Regional Capacity Benefit Margin Methodology (Appendix 6A – Subsection C). The Methodology will need to be reviewed to see if it contains all of the components identified in the standard.         | Sounds like a standard way of doing something. However it does not sound like the typical standard because it is a joint process of development. If everyone is expected to use the say method it sounds like a standard | <b>MRO Procedure</b> | <b>MRO Procedure- 2</b> SARS are pending in NERC, don't need to decide anything other than transmission provider, 2 exist (MAPP Handbook & MISO Reliability Plan) As long as members have it, make sure SAS power know they need to have this. In Reliability handbook |
| <b>Standard MOD-008-0</b> — Documentation and Content of Each Regional TRM Methodology | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional TRM methodology. The Region's TRM methodology shall specify or describe each of the following five items, and shall explain its use, if any, in determining TRM values. Other items that are Region-specific or that are considered in each respective Regional methodology shall also be explained along with their use in determining TRM values.                                                         | MAPP's methodology is described in the Reliability Handbook: MAPP Regional Transmission Reliability Margin Methodology (Appendix 6A – Subsection B). The Methodology will need to be reviewed to see if it contains all of the components identified in the standard. | Sounds like a standard way of doing something. However it does not sound like the typical standard because it is a joint process of development. If everyone is expected to use the say method it sounds like a standard | <b>MRO Procedure</b> | 1, 4, 8 similar. Lengthy discussion. Multiple responsibility                                                                                                                                                                                                           |
| <b>Standard MOD-002-0</b> — Review of TTC and ATC Calculations and                     | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and implement a procedure to periodically review (at least annually) and ensure that the TTC and ATC calculations and resulting values of member Transmission Service                                                                                                                                                                                                                                                               | No procedure currently exists.                                                                                                                                                                                                                                        | Procedure                                                                                                                                                                                                                | <b>MRO Staff</b>     | Staff review for compliance.                                                                                                                                                                                                                                           |

| NERC Standard                                                                                                        | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Comment                                                         | Procedure, Process or Standard                                                            | RAC Comments              | Who assigned to:                                              |
|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------|
| Results                                                                                                              | Providers comply with the Regional TTC and ATC methodology and applicable Regional criteria.                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                 |                                                                                           |                           |                                                               |
| <b>Standard MOD-005-0</b> — Procedure for Verifying CBM Values                                                       | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and implement a procedure to periodically review (at least annually) and ensure that the TTC and ATC calculations and resulting values of member Transmission Service Providers comply with the Regional TTC and ATC methodology and applicable Regional criteria.                                                                                                                                     | No procedure currently exists.                                  | Procedure                                                                                 | MRO Staff                 | Staff review for compliance.                                  |
| <b>Standard MOD-009-0</b> — Procedure for Verifying TRM Values                                                       | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and implement a procedure to review Transmission Reliability Margin (TRM) calculations and resulting values of member Transmission Service Providers to ensure they comply with the Regional TRM methodology, and are periodically updated and available to transmission users. This procedure shall include the following four required elements                                                      | No procedure currently exists.                                  | Procedure                                                                                 | MRO Staff                 | Staff review for compliance.                                  |
| <b>Standard MOD-003-0</b> — Procedure for Input on TTC and ATC Methodologies and Values                              | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and document a procedure on how transmission users can input their concerns or questions regarding the TTC and ATC methodology and values of the Transmission Service Provider(s), and how these concerns or questions will be addressed. The Regional Reliability Organization's procedure shall specify the following: (See standard for details)                                                    | No procedure currently exists.                                  | Procedure                                                                                 | MRO Staff                 | Users tell us...staff set up procedure for dispute resolution |
| <b>Standard MOD-011-0</b> - Maintenance and Distribution of Steady-State Data Requirements and Reporting Procedures. | R1. The Regional Reliability Organizations within an Interconnection, in conjunction with the Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners, shall develop comprehensive steady-state data requirements and reporting procedures needed to model and analyze the steady-state conditions for each of the NERC Interconnections: Eastern, Western, and ERCOT. Within an Interconnection, the Regional Reliability Organizations shall jointly coordinate the | Is the MRO involved in this process, or is this a MAPP process? | <b>Could be viewed as NERC issue with reporting through MRO - MMWG working this issue</b> | <b>NERC Working Group</b> | RAC                                                           |

| NERC Standard                                                                                                            | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Comment                                                                | Procedure, Process or Standard                                         | RAC Comments                     | Who assigned to: |
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|                                                                                                                          | <p>development of the data requirements and reporting procedures for that Interconnection. The Interconnection-wide requirements shall include the following steady-state data requirements:</p> <p>R2. The Regional Reliability Organizations within an Interconnection shall document their Interconnection's steady-state data requirements and reporting procedures, shall review those data requirements and reporting procedures (at least every five years), and shall make the data requirements and reporting procedures available on request (within five business days) to Regional Reliability Organizations, NERC, and all users of the interconnected transmission systems.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                        |                                                                        |                                  |                  |
| <p><b>Standard MOD-013-0</b><br/>Maintenance and Distribution of Dynamics Data Requirements and Reporting Procedures</p> | <p>R1. The Regional Reliability Organization, in coordination with its Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners, shall develop comprehensive dynamics data requirements and reporting procedures needed to model and analyze the dynamic behavior or response of each of the NERC Interconnections: Eastern, Western, and ERCOT. Within an Interconnection, the Regional Reliability Organizations shall jointly coordinate on the development of the data requirements and reporting procedures for that Interconnection. Each set of Interconnection-wide dynamics data requirements shall include the following dynamics data requirements: (See standard for details)</p> <p>R2. The Regional Reliability Organization shall participate in the documentation of its Interconnection's data requirements and reporting procedures and, shall participate in the review of those data requirements and reporting procedures (at least every five years), and shall provide those data requirements and reporting procedures to Regional Reliability Organizations, NERC, and all users of the Interconnected systems on request (within five business days).</p> | <p>Is the MRO involved in this process, or is this a MAPP process?</p> | <p><b>Could be viewed as NERC issue with reporting through MRO</b></p> | <p><b>NERC Working Group</b></p> | <p>RAC</p>       |

| NERC Standard                                                          | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Comment                                                         | Procedure, Process or Standard                                  | RAC Comments              | Who assigned to: |
|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|---------------------------|------------------|
| <b>Standard MOD-014-0</b><br>Development of Steady-State System Models | <p>R1. The Regional Reliability Organization(s) within each Interconnection shall coordinate and jointly develop and maintain a library of solved (converged) Interconnection-specific steadystate system models. The Interconnection-specific models shall include near- and longer-term planning horizons that are representative of system conditions for projected seasonal peak, minimum, and other appropriate system demand levels.</p> <p>R2. The Regional Reliability Organization(s) within each Interconnection shall coordinate and jointly develop steady-state system models annually for selected study years, as determined by the Regional Reliability Organizations within its Interconnection. The Regional Reliability Organization shall provide the most recent solved (converged) Interconnection-specific steadystate models to NERC in accordance with each Interconnection's schedule for submission.</p> | Is the MRO involved in this process, or is this a MAPP process? | <b>Could be viewed as NERC issue with reporting through MRO</b> | <b>NERC Working Group</b> | RAC              |
| <b>Standard MOD-014-0</b><br>Development of Dynamics System Models     | <p>R1. The Regional Reliability Organization(s) within each Interconnection shall coordinate and jointly develop and maintain a library of initialized (with no Faults or system Disturbances) Interconnection-specific dynamics system models linked to the steady-state system models, as appropriate, of Reliability Standard MOD-014-0_R1.</p> <p>R2. The Regional Reliability Organization(s) within each Interconnection shall develop Interconnection dynamics system models for their Interconnection annually for selected study years as determined by the Regional Reliability Organization(s) within each Interconnection and shall provide the most recent initialized (approximately 25 seconds, no-fault) models to NERC in accordance with each Interconnection's schedule for submission.</p>                                                                                                                      | Is the MRO involved in this process, or is this a MAPP process? | <b>Procedure/Process NERC models w/data request to MRO</b>      | <b>NERC Working Group</b> | RAC              |

| NERC Standard                                                                                                                                                           | Requirement                                                                                                                                                                                                                                                                                                                                  | Comment                                                                                                                                                                                                                                                           | Procedure, Process or Standard             | RAC Comments | Who assigned to:                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------|------------------------------------------------------------------------------------------------------|
| <b>Standard MOD-016-0</b><br>Documentation of Data Reporting Requirements for Actual and Forecast Demands, Net Energy for Load, and Controllable Demand-Side Management | R1. The Planning Authority and Regional Reliability Organization shall have documentation identifying the scope and details of the actual and forecast (a) Demand data, (b) Net Energy for Load data, and (c) controllable DSM data to be reported for system modeling and reliability analyses.                                             | Is the MRO involved in this process, or is this a MAPP process?                                                                                                                                                                                                   | <b>Procedure/Process - MRO is involved</b> | <b>MRO</b>   | ?                                                                                                    |
| <b>Standard PRC-002-0</b><br>Define and Document Disturbance Monitoring Equipment Requirements.                                                                         | R1. The Regional Reliability Organization shall develop comprehensive requirements for the installation of Disturbance monitoring equipment to ensure data is available to determine system performance and the causes of System Disturbances. The comprehensive requirements shall include all of the following: (See standard for details) | The reliability handbook, appendix 4a, has some requirements for disturbance monitoring equipment. It does not appear that the appendix meets all the requirements of the standard. The contents will need to be reviewed against the specifics of this standard. | Standard                                   | <b>MRO</b>   | Standard                                                                                             |
| <b>Standard PRC-003-0</b><br>Regional Procedure for Transmission Protection System Misoperations.                                                                       | R1. Each Regional Reliability Organization shall have a procedure for the monitoring, review, analysis, and correction of all transmission protection system misoperations. Each Regional Reliability Organization's procedure shall include the following elements: (See standard for details)                                              | Misoperations are currently sent in but I am not sure that there is a procedure for review, analysis and correction.                                                                                                                                              | Procedure                                  | MAPP& MISO   | Staff. More monitoring, data submitted and staff follows up to see if those actions have taken place |

| NERC Standard                                                                                                                          | Requirement                                                                                                                                                                                                                                                                                                                                                                                          | Comment                                                                                                                                            | Procedure, Process or Standard                             | RAC Comments           | Who assigned to: |
|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------|------------------|
| <b>Standard PRC-006-0</b><br>Development and Documentation of Regional Reliability Organizations' Underfrequency Load Shedding Program | R1. Each Regional Reliability Organization shall develop, coordinate, and document an UFLS program, which shall include the following: (See standard for details)                                                                                                                                                                                                                                    | There is no criteria in the Handbook                                                                                                               | <b>Standard- Could this be a procedure? RAC - Standard</b> | <b>MRO</b>             | Standard         |
| <b>Standard PRC-012-0</b> Special Protection System Review Procedure                                                                   | R1. Each Regional Reliability Organization with a Transmission Owner, Generator Owner, or Distribution Providers that uses or is planning to use an SPS shall have a documented Regional Reliability Organization SPS review procedure to ensure that SPSs comply with Regional criteria and NERC Reliability Standards. The Regional SPS review procedure shall include: (See standard for details) | The Reliability Handbook has very little information on SPS. A procedure should be developed that includes all of the requirements of the standard | Procedure                                                  | <b>RAC - MRO Staff</b> | RAC and Staff    |
| <b>Standard PRC-013-0</b> Special Protection System Database                                                                           | R1. The Regional Reliability Organization that has a Transmission Owner, Generator Owner, or Distribution Provider with an SPS installed shall maintain an SPS database. The database shall include the following types of information: (See standard for details)                                                                                                                                   | A data base should be developed that includes all of the requirements of the standard                                                              | Process (database)                                         | <b>RAC - MRO Staff</b> | RAC and Staff    |
| <b>Standard PRC-014-0</b> Special Protection System Assessment                                                                         | R1. The Regional Reliability Organization shall assess the operation, coordination, and effectiveness of all SPSs installed in its Region at least once every five years for compliance with NERC Reliability Standards and Regional criteria.                                                                                                                                                       | Establish a process/procedure to review SPS                                                                                                        | Process/Procedure                                          | <b>RAC - MRO Staff</b> | RAC and Staff    |
| <b>Standard TPL-005-0</b> — Regional and Interregional Self-Assessment Reliability Reports                                             | R1. Each Regional Reliability Organization shall annually conduct reliability assessments of its respective existing and planned Regional Bulk Electric System (generation and transmission facilities) for: (See standard for details)                                                                                                                                                              | The MRO will need to develop a process/procedure                                                                                                   | Process/Procedure                                          | <b>RAC - MRO Staff</b> | RAC and Staff    |

| NERC Standard                                                                          | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Comment                                          | Procedure, Process or Standard | RAC Comments           | Who assigned to: |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------|------------------------|------------------|
| <b>Standard TPL-006-0</b> —<br>Assessment Data from Regional Reliability Organizations | R1. Each Regional Reliability Organization shall provide, as requested (seasonally, annually, or as otherwise specified) by NERC, system data, including past, existing, and future facility and Bulk Electric System data, reports, and system performance information, necessary to assess reliability and compliance with the NERC Reliability Standards and the respective Regional planning criteria. The facility and Bulk Electric System data, reports, and system performance information shall include, but not be limited to, one or more of the following types of information as outlined below: (See standard for details) | The MRO will need to develop a process/procedure | Process/Procedure              | <b>RAC - MRO Staff</b> | RAC and Staff    |

TPL-001

**Standards Committee 2005 Activities List**

| Activities for 2005:                                                                                                                                                                                                                                                                                                                                                                     | Status:                                                                                                                                                                                         | Assigned To:        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| The SC is preparing a cross-reference table to be used with the MRO transition standards once the NERC Version 0 standards are in force. This is needed because the MAPP specific standards that become the transition standards are written to be consistent with the current NERC standards. The format and function names have been significantly changed in the Version 0 Standards. | This is complete and the table is posted on MRO website.                                                                                                                                        | Complete            |
| The SC will make a recommendation to the Board concerning the adoption of the NERC Version 0 Standards as organization Standards.                                                                                                                                                                                                                                                        | The Board has adopted the NERC Version 0 standards as MRO Standards at the recommendation of the SC.                                                                                            | Complete            |
| The primary activity of the SC in 2005 will be to develop Organization Standards. The SC has started this process by identifying all of the requirements of the Version 0 Standards that pertain to the Regional Reliability Organization.                                                                                                                                               | The SAR for the initial set of MRO Standards has been approved. A SDT has been formed and has started the process of drafting a set of MRO standards to be used in the 2006 compliance program. | Ben & ADT           |
| The primary activity of the SC in 2005 will be to develop Organization Standards. The SC has started this process by identifying all of the requirements of the Version 0 Standards that pertain to the Regional Reliability Organization.                                                                                                                                               | The SAR for the initial set of MRO Standards has been approved. A SDT has been formed and has started the process of drafting a set of MRO standards to be used in the 2006 compliance program. | Larry               |
| The SC is determining what procedures are required by the NERC standards and assigning them to the appropriate MRO committees.                                                                                                                                                                                                                                                           | The initial identification of required procedures has been completed.                                                                                                                           | Completed           |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                 |                     |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                 |                     |
| <b>Standards Committee 2005 Activities List (continued)</b>                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                 |                     |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                 |                     |
| <b>Activities for 2005:</b>                                                                                                                                                                                                                                                                                                                                                              | <b>Status:</b>                                                                                                                                                                                  | <b>Assigned To:</b> |

|                                                                                                                                                                                      |                                                                                                                                                                                                  |                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|                                                                                                                                                                                      |                                                                                                                                                                                                  |                                                                                            |
| The SC will work with the MRO Compliance Office to establish administration procedures for certification of functional organizations once NERC certification standards are approved. | The initial registration procedure has been completed.<br><br>The certification procedures will be developed once the NERC standards on certification are adopted by the NERC Board of Trustees. | Al Boesch<br><br>TOP and BA should be posted<br><br>RC by middle of June<br><br>Adopt 0206 |
| The SC is working with staff to start Ballot Body registration and arrange to use the NERC posting, commenting and voting mechanism for Organization Standards.                      | Staff is working with NERC on this.                                                                                                                                                              | Ben D                                                                                      |
| The SC is reviewing the Standards Process Manual to determine if modifications should be recommended.                                                                                | The review has started and changes to the NERC Standards Process Manual are being monitored.                                                                                                     | Tim N                                                                                      |
| <b>Addition:</b> Develop a Regional Handbook Standards Section                                                                                                                       | Compile standards section of the Regional Handbook                                                                                                                                               | Ben D                                                                                      |
|                                                                                                                                                                                      |                                                                                                                                                                                                  |                                                                                            |
|                                                                                                                                                                                      |                                                                                                                                                                                                  |                                                                                            |

**DRAFT MINUTES**  
**MIDWEST RELIABILITY ORGANIZATION**  
**STANDARDS COMMITTEE**  
**St Paul Conference Center - St. Paul, MN**  
May 26, 2005 – 10:00am

**1. Welcome and Remarks from Chairman**

Chair Larson called the meeting of the Midwest Reliability Organization (MRO) Standards Committee (SC) to order at 10:00 a.m. Members were polled about departure time and adjournment was planned at 3:00 pm. Mr. Larson introduced Mr. Ben Deutsch, the new MRO Standards Process Manager. The following Committee Members and Guests were present:

**Members:**

|                             |                               |
|-----------------------------|-------------------------------|
| Larry Larson, OTP, Chair    | Lloyd Linke, WAPA, Vice Chair |
| Ben Deutsch, MRO, Secretary | Peter Burke, ATC              |
| Dave Acton, ALT             | Dave Kempf, GRE               |
| Al Boesch, NPPD             | Gerry Steffens, RPU           |
| Wayne Guttormson, SPC       | Tim Noeldner, WPPI            |

**Guests:**

|                      |                     |
|----------------------|---------------------|
| Claire Moeller, MISO | Ron Mazur, MH       |
| Shel Berg, MRO       | Larry Brusseau, MRO |
| Joe Knight, MRO      | Babs Moses, MRO     |

**2. Review Agenda**

- a. *Additional comments from compliance committee were added under Tab 8.*
- b. *Agenda item Tab 11 was modified.*  
The agenda is attached as Exhibit #1.

**3. Comments from the Chair**

- a. *Updates from MRO Board of Directors (BOD)*  
Chair Larson provided an update from the MRO BOD. Mr. Deutsch will check to see if the MRO Conduct of Representatives of MRO Policy has been posted.
- b. *Procedure to Designate Alternates*  
The procedure to designate an alternate is to send Mr. Deutsch and Mr. Larson notification the member cannot attend and who is the alternate. The alternate will not be added to the exploder list but, after notification, meeting information will be sent for that particular meeting.
- c. *E-mail Lists*  
A "SC members-only" exploder list will include only members. Other interested parties could be added to the general list. Finalized minutes are to be sent to the SC exploder list and posted on the web site. Mr. Ron Mazur, as the NERC SES Representative, and Mr. Darrick Moe with subcommittee chairs can be added to the SC members list.
- d. *Standard Drafting Team*  
The MRO – Augmentation Drafting Team e-mail list has been established.

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**4. Approval of Minutes -**

- a. *February 24 meeting:*  
Chair Larson called for discussion on the minutes of the February 24, 2005 Standards Committee meeting.

Deleted: t

***Upon motion duly made and seconded, the Standards Committee unanimously approved the February 24, 2005 minutes as amended.***

b. *March 8 and April 22 Conference Calls*

Chair Larson called for discussion on the minutes of the March 8, 2005 and April 22, 2005 conference call meetings.

***Upon motion duly made and seconded, the Standards Committee unanimously approved both the March 8, 2005 and April 22, 2005 minutes as written.***

5. **Standards Process Manager's Report**

a. *MRO Website Postings*

Mr. Knight updated the Committee on the status of the MRO commenting as it relates to NERC standards activities.

b. *Standards Drafting Team*

i. SAR Posting

Mr. Deutsch reported on the status of SAR postings. After committee discussion, Chair Larson asked the NERC Standards Review Subcommittee to send comments to NAESB on TLR Option 3A business practice and to FERC on the ATC components NOI.

ii. Approval of Additional Members

Mr. Deutsch, as SPM, recommends that the Standards Committee endorse the following appointments: Rob Thorson (MGE) Operations, Dave Acton (ALT) Operations, Jim Maenner (WPS) Operations, Hal Haugom (MGE) Operations, Tony Jankowski (WE) Operations, Pam Oreschnick (XEL) Operations, and Gordon Pietsch (GRE) Operations. Chair Larson noted that several committee members were on the list and expressed appreciation for their involvement.

***Upon motion duly made and seconded, the Standards Committee unanimously endorsed all the additions to the Augmentation Drafting Team.***

iii. Status Report

Mr. Deutsch reported on the Augmentation Drafting Team and their assignments. The next meeting is June 10, 2005.

c. *MRO Standards Process Software Status Report and Ballot Pool Registration*

Mr. Deutsch reported on the progress of the Ballot Pool Registration. The MRO is developing a web-based program which is being phased into operation over the next several months. Important target dates include:

- June 2005                      Registration of Ballot Body commences
- July 2005                        MRO Augmentations to Version 0 standards posted for comments
- October 2005                  Balloting on the commences
- December 2005                MRO Augmentations submitted to the Board of Directors
- January 2006                  Implementation of the MRO Augmentations provided BOD adopts

**Action Item:** Mr. Knight will find where the process manual is posted on the website and notify the committee members. The MRO Standards Process Manual is located

on the MRO website at the following link  
([http://www.midwestreliability.org/policies\\_procedures.html](http://www.midwestreliability.org/policies_procedures.html))

6. **Large Regional Reliability Council Update**  
Mr. Deutsch reported on the Large Regional Reliability Council.
7. **NERC Standards Evaluation Subcommittee Report**  
Mr. Mazur reported as noted in Agenda Tab 10.
8. **MRO Procedures-**  
The committee reviewed the procedures attached as Exhibit #2. Assignments for each identified NERC required procedure were made. Two, UFLS and Disturbance Monitoring Equipment, were assigned to go through the standards process and will be included in the Augmentation Drafting Team work. Chair Larson will contact the board chairs and discuss the assigned procedures list before the September 20, 2005 meeting.  
**Action Item:** Ben D will draft an updated list with the SC comments and assignments.
9. **MRO Standards Process Document Proposed Changes**  
Chair Larson suggested, and the committee agreed, to review Mr. Noeldner's suggested changes to the **MRO Standards Process** manual via conference call **to be held** on July 11, 2005, 1:30 to 4:30 pm.
10. **Compliance**
  - a. *NERC Compliance and Certification Committee Update*  
Mr. Steffens gave an update on the Compliance and Certification Committee.
  - b. *MRO Regional Compliance Enforcement Plan 2005*  
Mr. Berg reported on the 2005 Plan. Chair Larson, at the request of Mr. Steffens, asked for consensus from the committee on having members' expenses reimbursed for being involved this is process. The committees' consensus was that members should be reimbursed.
11. **Review 2005 Activities List**  
The committee reviewed and corrected the activities list as shown in Exhibit #3.
12. **Other Items**
13. **Next meetings**
  - a. *July 11, 2005 Conference Call 1:30 PM*
  - b. *August 25, 2005 St Paul Conference Center 10:00AM*
  - c. *November 10, 2005 St Paul Conference Center 10:00AM*
14. **Adjourn**  
The members had no further business, so Chairman Larson adjourned the meeting at 3:08 pm.

Prepared and Submitted by:  
Babs Moses

Reviewed by Ben Deutsch, Secretary  
MRO Standards Committee

**MEETING AGENDA**  
**MIDWEST RELIABILITY ORGANIZATION**  
**STANDARDS COMMITTEE**  
 St Paul Conference Center – St. Paul, MN  
 May 26th, 2005 – 10:00am

|                                                                  |     |
|------------------------------------------------------------------|-----|
| 1) Welcome and Introductions                                     | Tab |
| 2) Review agenda                                                 | 1   |
| 3) Remarks from Chairman                                         |     |
| a) Updates from MRO Board                                        |     |
| b) Procedure to designate alternate                              |     |
| c) E-mail lists                                                  |     |
| i) Standards Committee - general                                 |     |
| ii) Standards Committee - members only                           |     |
| iii) Standard Drafting Team                                      |     |
| 4) Approval of minutes                                           |     |
| a) February 24 meeting                                           | 2   |
| b) March 8 conference call                                       | 3   |
| c) April 22 conference call                                      | 4   |
| 5) Standards Process Manger's report- Ben Deutsch                |     |
| a) MRO Website postings                                          | 5   |
| b) Standards Drafting Team                                       | 6   |
| i) SAR posting                                                   |     |
| ii) Approval of additional                                       | 7   |
| iii) Status report                                               |     |
| c) Ballot pool registration                                      | 8   |
| d) MRO Standards process software status report                  | 8   |
| 6) LRRRC update- Ben Deutsch                                     | 9   |
| 7) NERC Standards Evaluation Subcommittee report- Ron Mazur      | 10  |
| 8) MRO Procedures- Al Boesch and Wayne Guttormson                | 11  |
| a) Identify responsibilities                                     |     |
| 9) MRO Standards Process Document proposed changes- Tim Noeldner | 12  |
| a) NERC Standards Process changes                                |     |
| 10) Compliance                                                   |     |
| a) CCC update- Gerry Steffens                                    | 13  |
| b) MRO Regional Compliance Enforcement Plan 2005- Shel Berg      | 14  |
| 11) Review 2005 Activities list                                  | 15  |
| 12)                                                              | 16  |
| 13) Other Items                                                  |     |
| 14) Next meetings                                                |     |
| a) Aug 25, 2005 St Paul Conference Center 10:00AM                |     |
| b) Nov 10, 2005 St Paul Conference Center 10:00AM                |     |
| 15) Adjourn                                                      |     |

**Exhibit #2.**

| NERC Standard                                 | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Comment                                                                                                                                              | Procedure, Process or Standard                                  | RAC Comments            | Who assigned to:                                                     |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------|----------------------------------------------------------------------|
| BAL-002-0<br>Disturbance Control Performance  | R2. Each Regional Reliability Organization, sub-Regional Reliability Organization or Reserve Sharing Group shall specify its Contingency Reserve policies, including:(See standard for details)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | The GRSP Handbook addresses the requirements for contingency reserves. The 40% criteria is a good candidate for a Regional standard.                 | Standard - The reserve sharing pools establish this in the MRO. | MAPP GRSP and MAIN Pool | Applies to Reserve Sharing Pool with possible exception of 40% rule. |
| Standard BAL-006-0<br>Inadvertent Interchange | R.5 Adjacent Balancing Authorities that cannot mutually agree upon their respective Net Actual Interchange or Net Scheduled Interchange quantities by the 15th calendar day of the following month shall, for the purposes of dispute resolution, submit a report to their respective Regional Reliability Organization Survey Contact. The report shall describe the nature and the cause of the dispute as well as a process for correcting the discrepancy.                                                                                                                                                                                                                                                                                                                                                                                           | Is the MRO or MAPP submitting the summary                                                                                                            | Process                                                         | MRO Staff               | MRO Staff. Staff is doing surveys now.                               |
| EOP-004-0<br>Disturbance Reporting            | R1. Each Regional Reliability Organization shall establish and maintain a Regional reporting procedure to facilitate preparation of preliminary and final disturbance reports.<br><br>R5. The Regional Reliability Organization shall track and review the status of all final report recommendations at least twice each year to ensure they are being acted upon in a timely manner. If any recommendation has not been acted on within two years, or if Regional Reliability Organization tracking and review indicates at any time that any recommendation is not being acted on with sufficient diligence, the Regional Reliability Organization shall notify the NERC Planning Committee and Operating Committee of the status of the recommendation(s) and the steps the Regional Reliability Organization has taken to accelerate implementation | This is addressed in the reliability MAPP Reliability Handbook Appendix 5F – MAPP Disturbance Reporting. This appendix needs updating to fit the MRO | Procedure                                                       | MRO Staff               | MRO Staff put together procedures. This was in MAPP Handbook         |

| NERC Standard                                                                         | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Comment                                                                                                                                                                                                                                                                    | Procedure, Process or Standard                                                                                                                                                                                           | RAC Comments              | Who assigned to:                                                                                                                             |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| EOP-007-0<br>Establish, Maintain, and Document a Regional Blackstart Capability Plan. | R1. Each Regional Reliability Organization shall establish and maintain a system BCP, as part of an overall coordinated Regional SRP. The Regional SRP shall include requirements for verification through analysis how system blackstart generating units shall perform their intended functions and shall be sufficient to meet SRP expectations. The Regional Reliability Organization shall coordinate with and among other Regional Reliability Organizations as appropriate in the development of its BCP. The BCP shall include: (See standard for details) | Although the power system restoration plan identifies blackstart units it does not address all of the details of the standard. The MRO should establish some requirements.                                                                                                 | Standard - Could this be a procedure?                                                                                                                                                                                    | MRO Staff                 | MRO Staff. Post this and have everyone comment. It's not a standard but has standard quality. It's procedure/process for everyone to follow. |
| Standard FAC-004-0 — Methodologies for Determining Electrical Facility Ratings        | R1. The Transmission Owner and Generator Owner shall each document the methodology (ies) used to determine its electrical equipment and Facility Ratings. Further, the methodology (ies) shall comply with applicable Regional Reliability Organization requirements. The documentation shall address and include (See standard for details)                                                                                                                                                                                                                       | Although this standard references Regional requirements there is not a standard that requires the RRO to establish facility rating methodology.                                                                                                                            | Nothing is required but a procedure could be generated if necessary.                                                                                                                                                     | MRO, MRO and MISO members | MRO, MRO and MISO members -                                                                                                                  |
| Standard MOD-001-0 — Documentation of TTC and ATC Calculation Methodologies           | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional TTC and ATC methodology. (Certain systems that are not required to post ATC values are exempt from this standard.) The Regional Reliability Organization's TTC and ATC methodology shall include each of the following nine items, and shall explain its use in determining TTC and ATC values:                                                                                                                                                 | MAPP's methodology is described in the Reliability Handbook: MAPP Region Total and Available Transfer Capability Methodology(Appendix 6A – Subsection A). The Methodology will need to be reviewed to see if it contains all of the components identified in the standard. | Sounds like a standard way of doing something. However it does not sound like the typical standard because it is a joint process of development. If everyone is expected to use the say method it sounds like a standard | MRO and RTC               | This doesn't have to be assigned to anyone unless there is a plan                                                                            |

| NERC Standard                                                                          | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Comment                                                                                                                                                                                                                                                               | Procedure, Process or Standard                                                                                                                                                                                           | RAC Comments  | Who assigned to:                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard MOD-004-0</b> — Documentation of Regional CBM Methodologies                | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional CBM methodology. The Regional Reliability Organization's CBM methodology shall include each of the following ten items, and shall explain its use in determining CBM value. Other items that are Regional Reliability Organization specific or that are considered in each respective Regional Reliability Organization methodology shall also be explained along with their use in determining CBM values. | MAPP's methodology is described in the Reliability Handbook: MAPP Regional Capacity Benefit Margin Methodology (Appendix 6A – Subsection C). The Methodology will need to be reviewed to see if it contains all of the components identified in the standard.         | Sounds like a standard way of doing something. However it does not sound like the typical standard because it is a joint process of development. If everyone is expected to use the say method it sounds like a standard | MRO Procedure | MRO Procedure- 2 SARS are pending in NERC, don't need to decide anything other than transmission provider, 2 exist (MAPP Handbook & MISO Reliability Plan) As long as members have it, make sure SAS power know they need to have this. In Reliability handbook |
| <b>Standard MOD-008-0</b> — Documentation and Content of Each Regional TRM Methodology | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional TRM methodology. The Region's TRM methodology shall specify or describe each of the following five items, and shall explain its use, if any, in determining TRM values. Other items that are Region-specific or that are considered in each respective Regional methodology shall also be explained along with their use in determining TRM values.                                                         | MAPP's methodology is described in the Reliability Handbook: MAPP Regional Transmission Reliability Margin Methodology (Appendix 6A – Subsection B). The Methodology will need to be reviewed to see if it contains all of the components identified in the standard. | Sounds like a standard way of doing something. However it does not sound like the typical standard because it is a joint process of development. If everyone is expected to use the say method it sounds like a standard | MRO Procedure | 1, 4, 8 similar. Lengthy discussion. Multiple responsibility                                                                                                                                                                                                    |
| <b>Standard MOD-002-0</b> — Review of TTC and ATC Calculations and Results             | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and implement a procedure to periodically review (at least annually) and ensure that the TTC and ATC calculations and resulting values of member Transmission Service Providers comply with the Regional TTC and ATC methodology and applicable Regional criteria.                                                                                                                                                                  | No procedure currently exists.                                                                                                                                                                                                                                        | Procedure                                                                                                                                                                                                                | MRO Staff     | Staff review for compliance.                                                                                                                                                                                                                                    |

| NERC Standard                                                                                                | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Comment                                                         | Procedure, Process or Standard                                                     | RAC Comments       | Who assigned to:                                              |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------|
| Standard MOD-005-0 — Procedure for Verifying CBM Values                                                      | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and implement a procedure to periodically review (at least annually) and ensure that the TTC and ATC calculations and resulting values of member Transmission Service Providers comply with the Regional TTC and ATC methodology and applicable Regional criteria.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | No procedure currently exists.                                  | Procedure                                                                          | MRO Staff          | Staff review for compliance.                                  |
| Standard MOD-009-0 — Procedure for Verifying TRM Values                                                      | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and implement a procedure to review Transmission Reliability Margin (TRM) calculations and resulting values of member Transmission Service Providers to ensure they comply with the Regional TRM methodology, and are periodically updated and available to transmission users. This procedure shall include the following four required elements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | No procedure currently exists.                                  | Procedure                                                                          | MRO Staff          | Staff review for compliance.                                  |
| Standard MOD-003-0 — Procedure for Input on TTC and ATC Methodologies and Values                             | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and document a procedure on how transmission users can input their concerns or questions regarding the TTC and ATC methodology and values of the Transmission Service Provider(s), and how these concerns or questions will be addressed. The Regional Reliability Organization's procedure shall specify the following: (See standard for details)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | No procedure currently exists.                                  | Procedure                                                                          | MRO Staff          | Users tell us...staff set up procedure for dispute resolution |
| Standard MOD-011-0- Maintenance and Distribution of Steady-State Data Requirements and Reporting Procedures. | R1. The Regional Reliability Organizations within an Interconnection, in conjunction with the Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners, shall develop comprehensive steady-state data requirements and reporting procedures needed to model and analyze the steady-state conditions for each of the NERC Interconnections: Eastern, Western, and ERCOT. Within an Interconnection, the Regional Reliability Organizations shall jointly coordinate the development of the data requirements and reporting procedures for that Interconnection. The Interconnection-wide requirements shall include the following steady-state data requirements:<br>R2. The Regional Reliability Organizations within an Interconnection shall document their Interconnection's steady-state data requirements and reporting procedures, shall review those data requirements and reporting procedures (at least every five years), and shall make the data requirements and | Is the MRO involved in this process, or is this a MAPP process? | Could be viewed as NERC issue with reporting through MRO - MMWG working this issue | NERC Working Group | RAC                                                           |

| NERC Standard                                                                                                    | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Comment                                                         | Procedure, Process or Standard                           | RAC Comments       | Who assigned to: |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------|--------------------|------------------|
|                                                                                                                  | reporting procedures available on request (within five business days) to Regional Reliability Organizations, NERC, and all users of the interconnected transmission systems.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                 |                                                          |                    |                  |
| <b>Standard MOD-013-0</b><br>Maintenance and Distribution of Dynamics Data Requirements and Reporting Procedures | <p>R1. The Regional Reliability Organization, in coordination with its Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners, shall develop comprehensive dynamics data requirements and reporting procedures needed to model and analyze the dynamic behavior or response of each of the NERC Interconnections: Eastern, Western, and ERCOT. Within an Interconnection, the Regional Reliability Organizations shall jointly coordinate on the development of the data requirements and reporting procedures for that Interconnection. Each set of Interconnection-wide dynamics data requirements shall include the following dynamics data requirements: (See standard for details)</p> <p>R2. The Regional Reliability Organization shall participate in the documentation of its Interconnection's data requirements and reporting procedures and, shall participate in the review of those data requirements and reporting procedures (at least every five years), and shall provide those data requirements and reporting procedures to Regional Reliability Organizations, NERC, and all users of the Interconnected systems on request (within five business days).</p> | Is the MRO involved in this process, or is this a MAPP process? | Could be viewed as NERC issue with reporting through MRO | NERC Working Group | RAC              |
| <b>Standard MOD-014-0</b><br>Development of Steady-State System Models                                           | <p>R1. The Regional Reliability Organization(s) within each Interconnection shall coordinate and jointly develop and maintain a library of solved (converged) Interconnection-specific steadystate system models. The Interconnection-specific models shall include near- and longer-term planning horizons that are representative of system conditions for projected seasonal peak, minimum, and other appropriate system demand levels.</p> <p>R2. The Regional Reliability Organization(s) within each</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Is the MRO involved in this process, or is this a MAPP process? | Could be viewed as NERC issue with reporting through MRO | NERC Working Group | RAC              |

| NERC Standard                                                                                                                                                           | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Comment                                                         | Procedure, Process or Standard                      | RAC Comments       | Who assigned to: |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------|--------------------|------------------|
|                                                                                                                                                                         | Interconnection shall coordinate and jointly develop steady-state system models annually for selected study years, as determined by the Regional Reliability Organizations within its Interconnection. The Regional Reliability Organization shall provide the most recent solved (converged) Interconnection-specific steadystate models to NERC in accordance with each Interconnection's schedule for submission.                                                                                                                                                                                                                                                                                                                                                                                           |                                                                 |                                                     |                    |                  |
| <b>Standard MOD-014-0</b><br>Development of Dynamics System Models                                                                                                      | <p>R1. The Regional Reliability Organization(s) within each Interconnection shall coordinate and jointly develop and maintain a library of initialized (with no Faults or system Disturbances) Interconnection-specific dynamics system models linked to the steady-state system models, as appropriate, of Reliability Standard MOD-014-0_R1.</p> <p>R2. The Regional Reliability Organization(s) within each Interconnection shall develop Interconnection dynamics system models for their Interconnection annually for selected study years as determined by the Regional Reliability Organization(s) within each Interconnection and shall provide the most recent initialized (approximately 25 seconds, no-fault) models to NERC in accordance with each Interconnection's schedule for submission.</p> | Is the MRO involved in this process, or is this a MAPP process? | Procedure/Process NERC models w/data request to MRO | NERC Working Group | RAC              |
| <b>Standard MOD-016-0</b><br>Documentation of Data Reporting Requirements for Actual and Forecast Demands, Net Energy for Load, and Controllable Demand-Side Management | R1. The Planning Authority and Regional Reliability Organization shall have documentation identifying the scope and details of the actual and forecast (a) Demand data, (b) Net Energy for Load data, and (c) controllable DSM data to be reported for system modeling and reliability analyses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Is the MRO involved in this process, or is this a MAPP process? | Procedure/Process - MRO is involved                 | MRO                | ?                |

| NERC Standard                                                                                                                          | Requirement                                                                                                                                                                                                                                                                                                                                                                                          | Comment                                                                                                                                                                                                                                                           | Procedure, Process or Standard                             | RAC Comments    | Who assigned to:                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------|
| <b>Standard PRC-002-0</b><br>Define and Document Disturbance Monitoring Equipment Requirements.                                        | R1. The Regional Reliability Organization shall develop comprehensive requirements for the installation of Disturbance monitoring equipment to ensure data is available to determine system performance and the causes of System Disturbances. The comprehensive requirements shall include all of the following: (See standard for details)                                                         | The reliability handbook, appendix 4a, has some requirements for disturbance monitoring equipment. It does not appear that the appendix meets all the requirements of the standard. The contents will need to be reviewed against the specifics of this standard. | Standard                                                   | MRO             | Standard                                                                                             |
| <b>Standard PRC-003-0</b><br>Regional Procedure for Transmission Protection System Misoperations.                                      | R1. Each Regional Reliability Organization shall have a procedure for the monitoring, review, analysis, and correction of all transmission protection system misoperations. Each Regional Reliability Organization's procedure shall include the following elements: (See standard for details)                                                                                                      | Misoperations are currently sent in but I am not sure that there is a procedure for review, analysis and correction.                                                                                                                                              | Procedure                                                  | MAPP& MISO      | Staff. More monitoring, data submitted and staff follows up to see if those actions have taken place |
| <b>Standard PRC-006-0</b><br>Development and Documentation of Regional Reliability Organizations' Underfrequency Load Shedding Program | R1. Each Regional Reliability Organization shall develop, coordinate, and document an UFLS program, which shall include the following: (See standard for details)                                                                                                                                                                                                                                    | There is no criteria in the Handbook                                                                                                                                                                                                                              | <b>Standard- Could this be a procedure? RAC - Standard</b> | MRO             | Standard                                                                                             |
| <b>Standard PRC-012-0</b> Special Protection System Review Procedure                                                                   | R1. Each Regional Reliability Organization with a Transmission Owner, Generator Owner, or Distribution Providers that uses or is planning to use an SPS shall have a documented Regional Reliability Organization SPS review procedure to ensure that SPSs comply with Regional criteria and NERC Reliability Standards. The Regional SPS review procedure shall include: (See standard for details) | The Reliability Handbook has very little information on SPS. A procedure should be developed that includes all of the requirements of the standard                                                                                                                | Procedure                                                  | RAC - MRO Staff | RAC and Staff                                                                                        |
| <b>Standard PRC-013-0</b> Special Protection System Database                                                                           | R1. The Regional Reliability Organization that has a Transmission Owner, Generator Owner, or Distribution Provider with an SPS installed shall maintain an SPS database. The database shall include the following types of information: (See standard for details)                                                                                                                                   | A data base should be developed that includes all of the requirements of the standard                                                                                                                                                                             | Process (database)                                         | RAC - MRO Staff | RAC and Staff                                                                                        |

| NERC Standard                                                                              | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Comment                                          | Procedure, Process or Standard | RAC Comments    | Who assigned to: |
|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------|-----------------|------------------|
| <b>Standard PRC-014-0</b> Special Protection System Assessment                             | R1. The Regional Reliability Organization shall assess the operation, coordination, and effectiveness of all SPSs installed in its Region at least once every five years for compliance with NERC Reliability Standards and Regional criteria.                                                                                                                                                                                                                                                                                                                                                                                           | Establish a process/procedure to review SPS      | Process/Procedure              | RAC - MRO Staff | RAC and Staff    |
| <b>Standard TPL-005-0</b> — Regional and Interregional Self-Assessment Reliability Reports | R1. Each Regional Reliability Organization shall annually conduct reliability assessments of its respective existing and planned Regional Bulk Electric System (generation and transmission facilities) for: (See standard for details)                                                                                                                                                                                                                                                                                                                                                                                                  | The MRO will need to develop a process/procedure | Process/Procedure              | RAC - MRO Staff | RAC and Staff    |
| <b>Standard TPL-006-0</b> — Assessment Data from Regional Reliability Organizations        | R1. Each Regional Reliability Organization shall provide, as requested (seasonally, annually, or as otherwise specified) by NERC, system data, including past, existing, and future facility and Bulk Electric System data, reports, and system performance information, necessary to assess reliability and compliance with the NERC Reliability Standards and the respective Regional planning criteria. The facility and Bulk Electric System data, reports, and system performance information shall include, but not be limited to, one or more of the following types of information as outlined below: (See standard for details) | The MRO will need to develop a process/procedure | Process/Procedure              | RAC - MRO Staff | RAC and Staff    |

TPL-001

**Standards Committee 2005 Activities List**

| Activities for 2005:                                                                                                                                                                                                                                                                                                                                                                            | Status:                                                                                                                                                                                                | Assigned To:         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| <p>The SC is preparing a cross-reference table to be used with the MRO transition standards once the NERC Version 0 standards are in force. This is needed because the MAPP specific standards that become the transition standards are written to be consistent with the current NERC standards. The format and function names have been significantly changed in the Version 0 Standards.</p> | <p>This is complete and the table is posted on MRO website.</p>                                                                                                                                        | <p>Complete</p>      |
| <p>The SC will make a recommendation to the Board concerning the adoption of the NERC Version 0 Standards as organization Standards.</p>                                                                                                                                                                                                                                                        | <p>The Board has adopted the NERC Version 0 standards as MRO Standards at the recommendation of the SC.</p>                                                                                            | <p>Complete</p>      |
| <p>The primary activity of the SC in 2005 will be to develop Organization Standards. The SC has started this process by identifying all of the requirements of the Version 0 Standards that pertain to the Regional Reliability Organization.</p>                                                                                                                                               | <p>The SAR for the initial set of MRO Standards has been approved. A SDT has been formed and has started the process of drafting a set of MRO standards to be used in the 2006 compliance program.</p> | <p>Ben &amp; ADT</p> |
| <p>The primary activity of the SC in 2005 will be to develop Organization Standards. The SC has started this process by identifying all of the requirements of the Version 0 Standards that pertain to the Regional Reliability Organization.</p>                                                                                                                                               | <p>The SAR for the initial set of MRO Standards has been approved. A SDT has been formed and has started the process of drafting a set of MRO standards to be used in the 2006 compliance program.</p> | <p>Larry</p>         |
| <p>The SC is determining what procedures are required by the NERC standards and assigning them to the appropriate MRO committees.</p>                                                                                                                                                                                                                                                           | <p>The initial identification of required procedures has been completed.</p>                                                                                                                           | <p>Completed</p>     |
|                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                        |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                        |                      |

| <b>Standards Committee 2005 Activities List (continued)</b>                                                                                                                          |                                                                                                                                                                                                         |                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Activities for 2005:</b>                                                                                                                                                          | <b>Status:</b>                                                                                                                                                                                          | <b>Assigned To:</b>                                                                               |
| The SC will work with the MRO Compliance Office to establish administration procedures for certification of functional organizations once NERC certification standards are approved. | <p>The initial registration procedure has been completed.</p> <p>The certification procedures will be developed once the NERC standards on certification are adopted by the NERC Board of Trustees.</p> | <p>Al Boesch</p> <p>TOP and BA should be posted</p> <p>RC by middle of June</p> <p>Adopt 0206</p> |
| The SC is working with staff to start Ballot Body registration and arrange to use the NERC posting, commenting and voting mechanism for Organization Standards.                      | Staff is working with NERC on this.                                                                                                                                                                     | Ben D                                                                                             |
| The SC is reviewing the Standards Process Manual to determine if modifications should be recommended.                                                                                | The review has started and changes to the NERC Standards Process Manual are being monitored.                                                                                                            | Tim N                                                                                             |
| <b>Addition:</b> Develop a Regional Handbook Standards Section                                                                                                                       | Compile standards section of the Regional Handbook                                                                                                                                                      | Ben D                                                                                             |
|                                                                                                                                                                                      |                                                                                                                                                                                                         |                                                                                                   |
|                                                                                                                                                                                      |                                                                                                                                                                                                         |                                                                                                   |

**Agenda 4.b.**  
**July 11, 2005**

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**DRAFT MINUTES**  
**MIDWEST RELIABILITY ORGANIZATION**  
**STANDARDS COMMITTEE**  
**Web Conference**

July 11, 2005 – 1:30 p.m. CDT

**1. Welcome and Remarks from Chairman**

Chair Larson called the meeting of the Midwest Reliability Organization (MRO) Standards Committee (SC) to order at 1:40 p.m. The following Committee Members and Guests were present:

**Members:**

Larry Larson, OTP, Chair  
Dave Acton, ALT  
Dave Kempf, GRE  
Gerry Steffens, RPU  
Tim Noeldner, WPPI

Lloyd Linke, WAPA, Vice Chair  
Peter Burke, ATC  
Al Boesch, NPPD  
Wayne Guttormson, SPC  
Ben Deutsch, MRO, Secretary

**Guests:**

Babs Moses, MRO

**2. Review Agenda**

Agenda Item # 3 was changed to: Anti-trust guidelines

**3. Anti-Trust Guidelines**

The committee reviewed the guidelines and had no questions.

**4. Review the MRO Standards Process Manual**

Mr. Noeldner reviewed the MRO Standards Process Manual with the committee. At 4:11 pm, Chairman Larson redirected the committee to review the Standards Augmentation Voting Process and then continued to review the Process Manual afterwards.

**5. Standards Augmentation Voting Process**

Chairman Larson led discussion of whether the voting on the five standards (one operating and four planning standards) should be by individual standard or as a group. The committee consensus was to ballot each standard individually.

**6. Review the MRO Standards Process Manual – resumed at 4:15pm**

Several committee members left the call between 4:15 and 5:00 pm. Changes and recommendations were made and are noted in the attached document.

**Action Item:** Mr. Noeldner and Mr. Deutsch will author a SAR to include the changes to start a formal process. The SAR will include reviewing the Version 4 NERC Standards Process Manual for changes. Provisions for administrative changes are to be suggested to avoid a prolonged process.

**11. Next meetings**

- a. August 25, 2005 St Paul Conference Center 10:00AM
- b. November 10, 2005 St Paul Conference Center 10:00AM

**12. Adjourn**

Having no further business, the meeting adjourned at 5:10 pm.

Prepared and Submitted by:  
Babs Moses

Reviewed by Ben Deutsch, Secretary  
MRO Standards Committee

**Agenda 4.c.**  
**July 21, 2005**

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**Ben G. Deutsch**

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**From:** Ben G. Deutsch [bg.deutsch@mappcor.org]  
**Sent:** Thursday, July 21, 2005 5:41 PM  
**To:** mrosc-mem@midwestreliability.org  
**Subject:** RE: [mrosc-mem] STANDARDS COMMITTEE: NOTICE OF ELECTRONIC BALLOT: July 21, 2005 RESULTS  
**Follow Up Flag:** Follow up  
**Flag Status:** Yellow

Good Afternoon,

The Standards Committee special meeting, via electronic ballot, closed at 5:00PM today. MRO Policy and Procedure 3 states a quorum is defined as a majority of the committee members required being present at the meeting, in person or electronically (telephone, webcast, or video) is required to conduct business.

- A quorum was achieved.

MRO Policy and Procedure 3 further states that recommendations and decisions of the committee shall require a simple majority of those members present and casting a vote.

- A simple majority voted to approve the MRO Standards Process Modifications SAR.

The SAR will be posted within the next day or two so the 30-day public commenting period is complete prior to the Standards Committee meeting in August.

Thanks and if you have any questions please let me know.

Ben

[bg.deutsch@midwestreliability.org](mailto:bg.deutsch@midwestreliability.org)

Telephone: 651-632-8574  
Fax: 651-632-8572  
Cell: 651-468-7139

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**From:** Ben G. Deutsch [mailto:bg.deutsch@mappcor.org]  
**Sent:** Tuesday, July 19, 2005 9:36 AM  
**To:** mrosc-mem@midwestreliability.org  
**Subject:** [mrosc-mem] STANDARDS COMMITTEE: NOTICE OF ELECTRONIC BALLOT: July 21, 2005

Good Morning,

Chair Larson has called a special meeting of the Standards Committee, via electronic ballot, to approve the MRO Standards Process Modifications SAR (attached). Please review the SAR

8/11/2005

and cast your vote no later than 5:00pm Central Daylight time July 21, 2005. Once the SAR has been approved, it will be posted for a 30-day public comment period. Votes may be sent to [bg.deutsch@Midwestreliability.org](mailto:bg.deutsch@Midwestreliability.org).

Regards,

Ben

[bg.deutsch@midwestreliability.org](mailto:bg.deutsch@midwestreliability.org)

Telephone: 651-632-8574

Fax: 651-632-8572

Cell: 651-468-7139

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You are currently subscribed to mrosc-mem as: [bg.deutsch@midwestreliability.org](mailto:bg.deutsch@midwestreliability.org).  
To unsubscribe send a blank email to [leave-mrosc-mem-9509K@midwestreliability.org](mailto:leave-mrosc-mem-9509K@midwestreliability.org)

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**Agenda 5.**  
**Standards Process Manager's Report**

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# Report to the Standards Committee by Ben Deutsch

Respectfully Submitted August 25, 2005  
Prepared August 11, 2005

## 1) Augmentation Standards Status

- Drafting Team key concepts
  - Standards are the “What”
  - Procedures are the “How”
  - Is the standard measurable?
  - Would regional standards enhance the NERC version 0 standard?
  - Process time versus need to modify document
- Five proposed standards created
  - Operating Reserve – Spinning
  - Power System Stabilizer
  - Generation Planning Reserves
  - System Performance
  - Subsynchronous Resonance
- Public commenting period ends August 27, 2005
  - To date, very limited comments received
  - Drafting team will review and respond to comments
- Re-posting, if necessary, scheduled to start on August 30, 2005

## 2) MRO Standards Process Manual SAR

- SAR received from Tim Noeldner
- Standards Committee accepted SAR by electronic ballot on July 21, 2005
- Tentative time line created
- **Action Item:** Drafting team recommendation

### 3) RSVP

- Development on track
  - Registration, Bulletin Broad, self-nominating, email notification, document posting, commenting, and process management tools in place
  - Reply to comments software due in testing August 15, 2005
  - Balloting software available September 15, 2005
- Registered Ballot Body
  - Approximately 26 companies have registered
    - Additional emails are planned to encourage participation
  - Approximately 48 individuals have registered (excluding MRO staff)
- Business Rules
  - Being developed to clarify language in the Standards Process Manual
  - Will be presented to the Standards Committee for adoption going forward
- NAESB and NERC
  - Discussion held with Rae McQuade, Michael Desselle, and Lou Oberski
  - NAESB will register in Ballot Body but will not comment
    - To date, NAESB has not registered in the RSVP program
  - NAESB will provide the MRO notification whether a proposed SAR may impact NAESB business practices
  - NERC has been advised of progress
    - To date, NERC has not registered in the RSVP program

### 4) Procedures

- Collecting procedures and categorizing
- Deliverables:
  - Draft Reliability Handbook Index
  - Transition plan for Upper MAIN/MAPP to MRO Standards

**Agenda 5.a.**  
**Standards Process Manager's Report**  
Augmentation Standards Status

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**Agenda 5.a.i.**  
**Standards Process Manager's Report**  
Augmentation Standards Status  
Drafting Team Status

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**Agenda 5.a.ii.**  
**Standards Process Manager's Report**  
Augmentation Standards Status  
Summary of Drafting Team Actions

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**Agenda 5.b.**  
**Standards Process Manager's Report**  
SAR Postings  
Standards Process Modifications

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**Agenda 5.c.**  
**Action Item**

Motion

Adopt Recommendations for Drafting Team to Draft Revised Standards Process Manual

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## **Recommendation to the Standard Committee for the Creation of a Standards Process Manual Drafting Team Members**

I would respectfully request your approval to create a SAR Standards Process Manual Drafting Team. This team recommendation comprises individuals who have self-nominated or are being recommended to be added to those that have self-nominated.

The Team would consist of the following individuals:

| <b>Name and Company</b>       | <b>Sector</b> |
|-------------------------------|---------------|
| <u>Voting Members</u>         |               |
| • Larry Larson (OTP)          | IOU<          |
| • Lloyd Linke (WAPA)          | FPMA          |
| • Dave Acton (Alliant Energy) | IOU>          |
| • Peter Burke (ATC)           | TSO           |
| • Dave Kempf (GRE)            | C             |
| • Al Boesch (NPPD)            | C             |
| • Gerry Steffens              | MU            |
| • Wayne Gutormson             | CU            |
| • Tim Noeldner                | MU            |
| <u>Non-Voting Members</u>     |               |
| • Ben Deutsch (MRO)           | Staff Support |
| • Joe Knight (MRO)            | Staff Support |
| • Barbara Moses (MRO)         | Staff Support |

### **Experience Summary:**

#### **Larry Larson (OTP)**

- Extensive utility experience
- Extensive MAPP and NERC experience
- Current MRO Chair, Standards Committee

#### **Lloyd Linke (WAPA)**

- Extensive utility experience in the areas of planning, operations and transmission
- Extensive MAPP Committee experience
- Current MRO Vice-Chair, Standards Committee

#### **Dave Acton (Alliant Energy)**

- Utility system operations at Alliant Energy and its IES predecessor since 1971
- 8 years as GENCO system operations manager for Alliant Energy.
- Extensive experience working with MAPP, MAIN, and the MISO
- Currently serves on the MRO Standards Committee

## **Recommendation to the Standard Committee for the Creation of a Standards Process Manual Drafting Team Members** (continued)

### **Peter Burke (ATC)**

- Utility experience and transmission
- Serves on various industry committees
- Current MRO Standards Committee member

### **Dave Kempf (GRE)**

- Extensive utility experience in planning
- Serves on various industry committees
- Current MRO Standards Committee member

### **Al Boesch (NPPD)**

- Extensive utility experience in nuclear, and operations
- Extensive MAPP and NERC committee experience
- Current MRO Standards Committee member

### **Gerry Steffens (RPU)**

- Extensive utility experience in operations
- Extensive MAPP and NERC committee experience
- Current MRO Standards Committee member

### **Wayne Gutormson (Saskatchewan Power)**

- Extensive utility experience in operations
- Extensive MAPP and NERC committee experience
- Current MRO Standards Committee member

### **Tim Noeldner (WPPI)**

- Extensive utility experience in planning and operations
- MAPP committee experience
- Current MRO Standards Committee member
- SAR drafter

Prepared and Respectfully Submitted to the MRO Standards Committee

By: Ben Deutsch, Standards Manager

Meeting Date: 08/25/05

## MRO Standards Process Revisions Time Line

| Calendar Date              | Action                                                                               |
|----------------------------|--------------------------------------------------------------------------------------|
|                            | <b>Note:</b> Missing highlighted dates will cause schedule slippage                  |
|                            |                                                                                      |
|                            |                                                                                      |
| 7/21/2005                  | SAR accepted by the Standards Committee                                              |
| 7/22/2005                  | Post SAR for Public Comments                                                         |
|                            |                                                                                      |
| 8/1/2005                   | Drafting Team Self Nomination Open until 08/20/05                                    |
| 8/20/2005                  | SAR Public Commenting Period Ends                                                    |
| 8/25/2005                  | Standards Committee action on SAR Authorize Drafting or Reject SAR                   |
| 8/25/2005                  | Standards Committee action on Drafting Team Recommendation if Drafting is authorized |
|                            |                                                                                      |
| 8/25/2005                  | Drafting Team Formed                                                                 |
|                            |                                                                                      |
| 9/23/2005                  | Draft Standard Developed                                                             |
|                            |                                                                                      |
| 9/26/2005                  | Post Standard for Public Comment                                                     |
|                            |                                                                                      |
| 11/10/2005                 | Draft Standard Public Commenting Closes                                              |
|                            |                                                                                      |
| 11/14/2005                 | Drafting Team Completes Responses                                                    |
|                            |                                                                                      |
| 11/15/2005                 | Re-Post Standard for Public Comment (If Necessary)                                   |
|                            |                                                                                      |
| 12/29/2005                 | Review Standard Public Comments (If Necessary)                                       |
|                            |                                                                                      |
| 1/6/2006                   | Post New Standard for Ballot                                                         |
|                            |                                                                                      |
| 2/5/2006                   | Ballot New Standard (Yes or No vote without regard to comments)                      |
|                            |                                                                                      |
| 2/19/2006                  | Ballot Closes (First vote is binding)                                                |
|                            |                                                                                      |
| 2/20/2006                  | Consensus Standard Posted                                                            |
|                            |                                                                                      |
| 3/21/2006                  | Consensus Period Ends                                                                |
|                            |                                                                                      |
| After 03/22/06             | Board of Directors takes action on Process Manual Recommendations                    |
|                            |                                                                                      |
| BOD Action Date<br>+ 1 Day | Compliance Program Manager Implements                                                |
|                            |                                                                                      |

## Standard Authorization Request Form

|                                |
|--------------------------------|
| <b>ID:</b> MRO-002-0           |
| <b>Authorized for Posting:</b> |
| Authorized for Development:    |

|                                                                           |
|---------------------------------------------------------------------------|
| <b>Title of Proposed Standard:</b><br>MRO Standards Process Modifications |
| <b>Request Date</b>                                                       |

### *SAR Requestor Information*

|                                      |                                                          |                                 |
|--------------------------------------|----------------------------------------------------------|---------------------------------|
| Name; Tim Noeldner (Requester)       | <b>SAR Type</b> (Check box for one of these selections.) |                                 |
| Company: Wisconsin Public Power Inc. |                                                          | New Standard                    |
| Telephone (608) 220-1263             | <input checked="" type="checkbox"/>                      | Revision to Existing Standard   |
| Fax (608) 837-0274                   |                                                          | Withdrawal of Existing Standard |
| E-mail: tnoeldner@wppisys.org        |                                                          | Urgent Action                   |

|                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Purpose</b></p> <p>Review the existing MRO Standards Process Manual, Version 2.0, dated September 29, 2004 to update, modify and incorporate new items from the revised NERC process document as well as the proposed NERC documents.</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Industry Need</b></p> <p>The MRO standards process manual requires additional clarity and revisions to incorporate MRO desired changes to the standards process in order to enhance the openness of the process as well as increase the effectiveness for the process.</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Brief Description</b></p> <p>Develop a revised MRO Standards Process Manual that includes membership input, NERC process revisions as applicable, and MRO desired modifications.</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

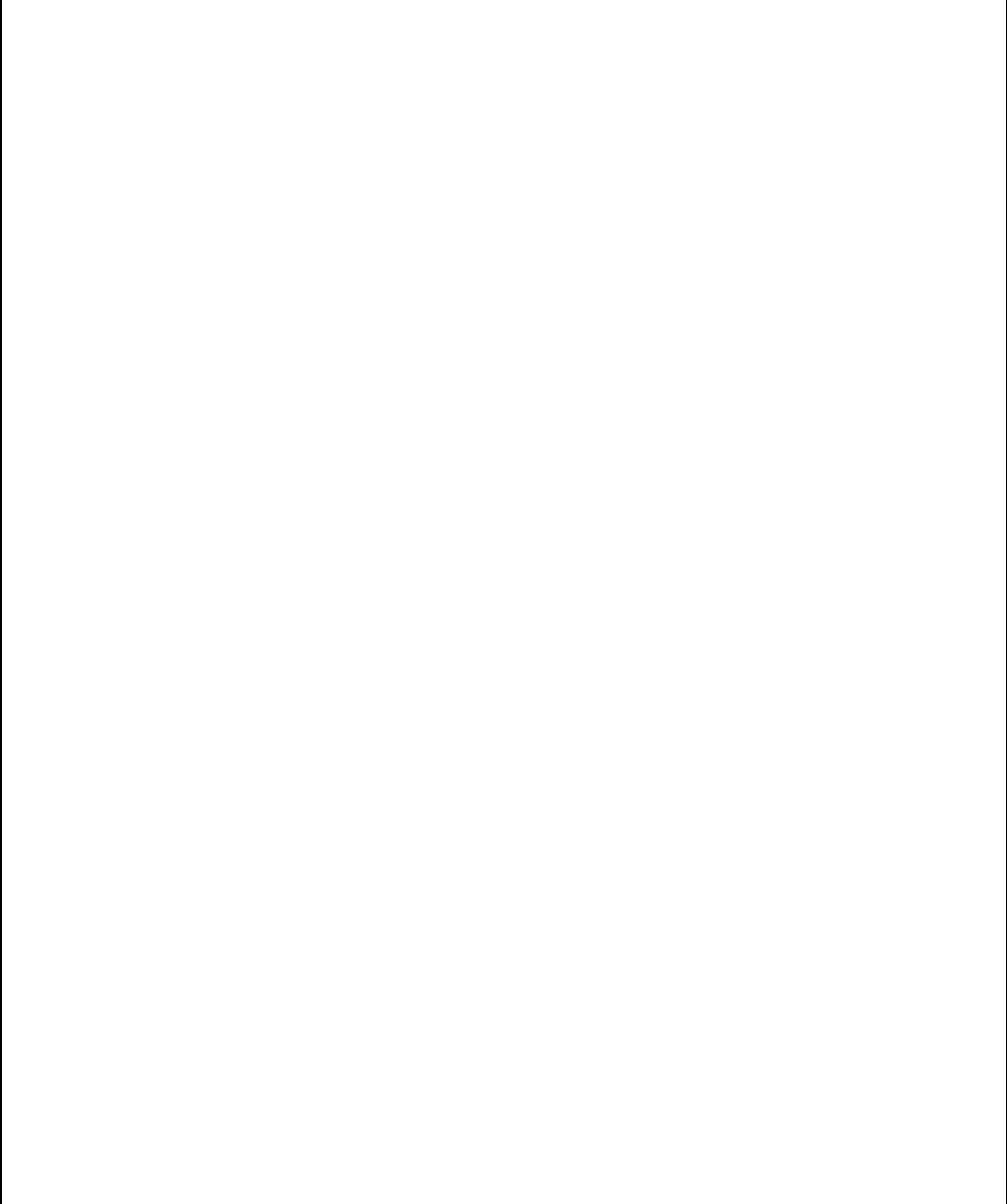
## Reliability Functions

| <b><i>The Standard will Apply to the Following Functions</i></b> (Check box for each one that applies.) |                                    |                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X                                                                                                       | Reliability Coordinator            | Ensures the reliability of the bulk transmission system within its Reliability Authority area. This is the highest reliability authority.                                                                                                           |
| X                                                                                                       | 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                                                                                                                                                                                                 |
| X                                                                                                       | Planning Authority                 | Plans the bulk electric system                                                                                                                                                                                                                      |
| X                                                                                                       | Transmission Planner               | Develops a long-term (>1 year) plan for the transmission systems within its portion of the Planning Authority area                                                                                                                                  |
| X                                                                                                       | Transmission Service Provider      | Provides transmission services to qualified market participants under applicable transmission service agreements                                                                                                                                    |
| X                                                                                                       | Transmission Owner                 | Owns transmission facilities                                                                                                                                                                                                                        |
| X                                                                                                       | Transmission Operator              | Operates and maintains the transmission facilities, and executes switching orders                                                                                                                                                                   |
| X                                                                                                       | Distribution Provider              | Provides and operates the "wires" between the transmission system and the customer                                                                                                                                                                  |
| X                                                                                                       | Generator Operator                 | Operates generation unit(s) or runs a market for generation products that performs the functions of supplying energy and Interconnected Operations Services                                                                                         |
| X                                                                                                       | Generator Owner                    | Owns and maintains generation unit(s)                                                                                                                                                                                                               |
| X                                                                                                       | Purchasing-Selling Entity          | The function of purchasing or selling energy, capacity and all necessary Interconnected Operations Services as required                                                                                                                             |
| X                                                                                                       | Load-Serving Entity                | Secures energy and transmission (and related generation services) to serve the end user                                                                                                                                                             |
| X                                                                                                       | Regional Reliability Organizations | An entity that ensures that a defined area of the Bulk Electric System is reliable, adequate and secure. 2. A member of the North American Electric Reliability Council. The Regional Reliability Organization can serve as the Compliance Monitor. |

|   |                       |                                                                                                                                                                                                                                        |
|---|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X | Reserve Sharing Group | A group, whose members consist of two or more Balancing Authorities that collectively maintain, allocate, and supply operating reserves required for each Balancing Authority's use in recovering from contingencies within the group. |
|---|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Detailed Description** (Provide enough detail so that an independent entity familiar with the industry could draft a Standard based on this description.)

- 1) Review current MRO Standards Process Manual, version 2.0, dated September 29, 2004, current NERC standards process and revisions plus any of the regional standards process development processes.
- 2) Review the Reliability First Corporation (RFC) process draft documents to determine whether or not it is possible to incorporate the RFC proposals into the MRO standard.
- 3) Draft a revised Standards Process document for the MRO region that remains open, inclusive, and is consistent with the NERC Standards process.



*Related Standards*

| Standard No. | Explanation |
|--------------|-------------|
|              |             |
|              |             |
|              |             |
|              |             |
|              |             |
|              |             |
|              |             |

*Related SARs*

| SAR ID | Explanation |
|--------|-------------|
|        |             |
|        |             |
|        |             |
|        |             |
|        |             |
|        |             |
|        |             |
|        |             |

Implementation Plan

|                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Description</b> <i>(Provide plans for the implementation of the proposed standard, including any known systems or training requirements.)</i></p> |
| <p>The drafting team will have the necessary expertise from planning and operating perspectives.</p>                                                    |
| <p><b>Proposed Implementation</b>                      <b>days after Board of Directors adoption or</b><br/><b>on (date):</b></p>                       |

Assignments

|                     |                   |
|---------------------|-------------------|
|                     | <i>Assignment</i> |
| <b>Team Members</b> |                   |
| <b>MRO Staff</b>    |                   |

**Agenda 5.d.**  
**Ballot Pool Registration**

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**Agenda 5.e.**  
**MRO Standards Process Software Status Report**

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**Agenda 5.e.i.**  
**MRO Standards Process Software Status Report**  
Ballot Body Registrations


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**Agenda 5.e.ii.**  
**MRO Standards Process Software Status Report**  
Business Rules


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**Agenda 6.**  
**Procedures Assignments**


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| Number                                       | <br>RO/MAIN Standards<br>Reliability Standards<br>Version 0 Attached as .pdf | Former MAIN-MAPP<br>Standards/Guides/Polici<br>es                                     | Version 0 Requirement (from Standards Committee worksheet)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Drafting Team<br>recommendations for<br>MRO Procedure, Criteria,<br>and Plans                                                                                                                                                          | Review and Drafting Support<br>Requested From (Discussion<br>stage)                 | Anticipated<br>Completion Date |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------|
| <b>Resource and Demand Balancing</b>         |                                                                                                                                                               |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                        |                                                                                     |                                |
| BAL-002-0                                    | <a href="#">Disturbance Control Performance</a>                                                                                                               | Policy 1 Section B MAIN<br>Guide 1A MAIN Guide<br>5A MAIN Guide 5B                    | R2. Each Regional Reliability Organization, sub-Regional Reliability Organization or Reserve Sharing Group shall specify its Contingency Reserve policies, including: See standard for details)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                        | Ownership assigned to MAPP<br>PAC for further assignment to<br>committee or staff   |                                |
| Propsoed<br>MRO<br>Standard                  | <a href="#">Operating Reserve - Spinning<br/>Requirement</a>                                                                                                  | Policy 1 Section B MAIN<br>Guide 1A MAIN Guide<br>5A MAIN Guide 5B                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MRO Proposed Standard                                                                                                                                                                                                                  | Ownership assigned to MAPP<br>PAC for further assignment to<br>committee or staff   |                                |
| BAL-005-0                                    | <a href="#">Automatic Generation Control</a>                                                                                                                  | Policy 1 Section E                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MAIN Guide 5A criteria for<br>regulating reserves to be utilized as<br>a Guideline                                                                                                                                                     | Ownership assigned to MAPP<br>PAC for further assignment to<br>committee or staff   |                                |
| BAL-006-0                                    | <a href="#">Inadvertent Interchange</a>                                                                                                                       | Policy 1 Section F                                                                    | R.5 Adjacent Balancing Authorities that cannot mutually agree upon their respective Net Actual Interchange or Net Scheduled Interchange quantities by the 15th calendar day of the following month shall, for the purposes of dispute resolution, submit a report to their respective Regional Reliability Organization Survey Contact. The report shall describe the nature and the cause of the dispute as well as a process for correcting the discrepancy.                                                                                                                                                                                                                                                                                                                                                                                           | MRO recommended to review<br>procedures to prepare a monthly<br>Inadvertent Interchange summary<br>to monitor the Balancing<br>Authorities' monthly Inadvertent<br>Interchange and all-time<br>accumulated Inadvertent<br>Interchange. | Ownership assigned to<br>Compliance for further<br>assignment to committee or staff |                                |
| <b>Emergency Preparedness and Operations</b> |                                                                                                                                                               |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                        |                                                                                     |                                |
| EOP-002-0                                    | <a href="#">Capacity and Energy Emergencies</a>                                                                                                               | Policy 5 Section C P5T1<br>Policy 9 Section F MAIN<br>Guide 1A MAIN DCS<br>Allocation | M1. At the discretion of the Regional Reliability Organization or NERC, an investigation may be initiated to review the operation of a Balancing Authority or Reliability Coordinator when they have implemented their Capacity and Energy Emergency plans.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | MRO recommended to review<br>MAIN Guide 1A as a possible<br>Guideline                                                                                                                                                                  | Ownership assigned to RAC for<br>further assignment to committee<br>or staff        |                                |
| EOP-004-0                                    | <a href="#">Disturbance Reporting</a>                                                                                                                         | MAPP Appendix 5F MAIN<br>Guide 3A                                                     | R1. Each Regional Reliability Organization shall establish and maintain a Regional reporting procedure to facilitate preparation of preliminary and final disturbance reports.<br><br>R5. The Regional Reliability Organization shall track and review the status of all final report recommendations at least twice each year to ensure they are being acted upon in a timely manner. If any recommendation has not been acted on within two years, or if Regional Reliability Organization tracking and review indicates at any time that any recommendation is not being acted on with sufficient diligence, the Regional Reliability Organization shall notify the NERC Planning Committee and Operating Committee of the status of the recommendation(s) and the steps the Regional Reliability Organization has taken to accelerate implementation | MRO recommended to review<br>Appendix 5F and MAIN Guide 3A<br>to update disturbance reporting                                                                                                                                          | Ownership assigned to RAC for<br>further assignment to committee<br>or staff        |                                |


| Number                                                |  RO/MAIN Standards<br>Reliability Standards<br>Version 0 Attached as .pdf | Former MAIN-MAPP<br>Standards/Guides/Polices                               | Version 0 Requirement (from Standards Committee worksheet)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Drafting Team<br>recommendations for<br>MRO Procedure, Criteria,<br>and Plans                                                     | Review and Drafting Support<br>Requested From (Discussion<br>stage)           | Anticipated<br>Completion Date |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------|
| EOP-005-0                                             | <a href="#">System Restoration Plans</a>                                                                                                                   | Policy 6 Section D P6T2<br>MAIN Guide 1B MAIN<br>Guide 1C MAIN Guide<br>3A | Self-Certification: Each Transmission Operator shall annually self-certify to the Regional Reliability Organization that the following criteria have been met.                                                                                                                                                                                                                                                                                                                                                                                                     | MRO recommended to develop criteria for coordination and review of System Restoration Plans                                       | Ownership assigned to Compliance for further assignment to committee or staff |                                |
| EOP-007-0                                             | <a href="#">Establish, Maintain, and Document a Regional Blackstart Capability Plan</a>                                                                    | IV.A.M1                                                                    | R1. Each Regional Reliability Organization shall establish and maintain a system BCP, as part of an overall coordinated Regional SRP. The Regional SRP shall include requirements for verification through analysis how system blackstart generating units shall perform their intended functions and shall be sufficient to meet SRP expectations. The Regional Reliability Organization shall coordinate with and among other Regional Reliability Organizations as appropriate in the development of its BCP. The BCP shall include: (See standard for details) | MRO recommended to review and modify the Regional Blackstart Capability Plan, and coordinate with appropriate entities.           | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| <b>Facilities Design, Connections and Maintenance</b> |                                                                                                                                                            |                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                   |                                                                               |                                |
| FAC-001-0                                             | <a href="#">Facility Connection Requirements</a>                                                                                                           | I.C.M1                                                                     | R1. The Transmission Owner shall document, maintain, and publish facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Reliability Organization, sub regional, Power Pool, and individual Transmission Owner planning criteria and facility connection requirements.                                                                                                                                                                                                                                       | MRO recommended to review and modify planning criteria and facility connection requirements.                                      | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| FAC-002-0                                             | <a href="#">Coordination of Plans for New Facilities</a>                                                                                                   | I.C.M2                                                                     | R2. The Planning Authority, Transmission Planner, Generator Owner, Transmission Owner, Load-Serving Entity, and Distribution Provider shall each retain its documentation (of its evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems) for three years and shall provide the documentation to the Regional Reliability Organization(s) Regional Reliability Organization(s) and NERC on request (within 30 calendar days).                                                                 | MRO recommended to review and modify MRO system planning and reporting requirements criteria                                      | Ownership assigned to Compliance for further assignment to committee or staff |                                |
| FAC-003-0                                             | <a href="#">Vegetation Management Program</a>                                                                                                              |                                                                            | R2. Each Transmission Owner shall report to its Regional Reliability Organization all vegetation related outages on transmission circuits 200 kV and higher and any other lower voltage lines designated by the Regional Reliability Organization to be critical to the reliability of the electric system.                                                                                                                                                                                                                                                        | MRO recommended to review and modify criteria that designates critical transmission lines and reporting process within the region | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| FAC-004-0                                             | Methodologies for Determining Electrical Facility Ratings                                                                                                  | II.C.M1 MAIN Guide 3A<br>MAIN Guide 3B                                     | R1. The Transmission Owner and Generator Owner shall each document the methodology (ies) used to determine its electrical equipment and Facility Ratings. Further, the methodology (ies) shall comply with applicable Regional Reliability Organization requirements. The documentation shall address and include (See standard for details)                                                                                                                                                                                                                       | MRO recommended to review and modify criteria for member utilization                                                              | Ownership assigned to RAC for further assignment to committee or staff        |                                |


| Number                                            |  RO/MAIN Standards<br>Reliability Standards<br>Version 0 Attached as .pdf | Former MAIN-MAPP<br>Standards/Guides/Polici<br>es | Version 0 Requirement (from Standards Committee worksheet)                                                                                                                                                                                                                                                                                                                                                                                     | Drafting Team<br>recommendations for<br>MRO Procedure, Criteria,<br>and Plans                                                                                                      | Review and Drafting Support<br>Requested From (Discussion<br>stage)           | Anticipated<br>Completion Date |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------|
| <b>Interconnection Reliability Operations and</b> |                                                                                                                                                            |                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                    |                                                                               |                                |
| IRO-001-0                                         | <a href="#">Reliability Coordination – Responsibilities and Authorities</a>                                                                                | Policy 9 Section A P9T3                           | R1. Each Regional Reliability Organization, sub region, or interregional coordinating group shall establish one or more Reliability Coordinators to continuously assess transmission reliability and coordinate emergency operations among the operating entities within the region and across the regional boundaries.                                                                                                                        | MRO recommended to develop method to review the Reliability Coordinator documentation and the agreements with entities that delineate the authority of the Reliability Coordinator | Ownership assigned to Compliance for further assignment to committee or staff |                                |
| IRO-006-0                                         | <a href="#">Reliability Coordination – Transmission Loading Relief</a>                                                                                     | Policy 9 Section F P9T2                           | The Regional Reliability Organization or NERC may initiate an investigation if there is a complaint that an entity has not implemented relief procedures in accordance with these requirements.                                                                                                                                                                                                                                                | MRO recommended to develop criteria and process to initiate an investigation if there is a complaint that an entity has not implemented relief procedures                          | Ownership assigned to Compliance for further assignment to committee or staff |                                |
| <b>Modeling, Data, and Analysis</b>               |                                                                                                                                                            |                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                    |                                                                               |                                |
| MOD-001-0                                         | <a href="#">Documentation of TTC and ATC Calculation Methodologies</a>                                                                                     | I.E.1.M1 MAPP Appendix 6A, subsection A           | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional TTC and ATC methodology. (Certain systems that are not required to post ATC values are exempt from this standard.) The Regional Reliability Organization's TTC and ATC methodology shall include each of the following nine items, and shall explain its use in determining TTC and ATC values                              | MRO recommend to review and modify as necessary the Regional TTC and ATC Calculation methodologies                                                                                 | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| MOD-002-0                                         | <a href="#">Review of TTC and ATC Calculations and Results</a>                                                                                             | I.E.1.M3                                          | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and implement a procedure to periodically review (at least annually) and ensure that the TTC and ATC calculations and resulting values of member Transmission Service Providers comply with the Regional TTC and ATC methodology and applicable Regional criteria.                                                                                  | MRO recommended to review and modify procedures to review compliance with regional methodology                                                                                     | Ownership assigned to Compliance for further assignment to committee or staff |                                |
| MOD-003-0                                         | <a href="#">Procedure for Input on TTC and ATC Methodologies and Values</a>                                                                                | I.E.1.M4                                          | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and document a procedure on how transmission users can input their concerns or questions regarding the TTC and ATC methodology and values of the Transmission Service Provider(s), and how these concerns or questions will be addressed. The Regional Reliability Organization's procedure shall specify the following: (See standard for details) | MRO recommended to review and modify regional criteria on how users can input and question values                                                                                  | Ownership assigned to RAC for further assignment to committee or staff        |                                |


| Number    | <br>RO/MAIN Standards<br>Reliability Standards<br>Version 0 Attached as .pdf | Former MAIN-MAPP<br>Standards/Guides/Polici<br>es | Version 0 Requirement (from Standards Committee worksheet)                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Drafting Team<br>recommendations for<br>MRO Procedure, Criteria,<br>and Plans                      | Review and Drafting Support<br>Requested From (Discussion<br>stage)           | Anticipated<br>Completion Date |
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| MOD-004-0 | <a href="#">Documentation of Regional CBM Methodologies</a>                                                                                                   | I.E.2.M1 MAPP Appendix 6A, Subsection C           | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional CBM methodology. The Regional Reliability Organization's CBM methodology shall include each of the following ten items, and shall explain its use in determining CBM value. Other items that are Regional Reliability Organization specific or that are considered in each respective Regional Reliability Organization methodology shall also be explained along with their use in determining CBM values. | MRO recommended to review and modify as necessary the CBM methodology                              | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| MOD-005-0 | <a href="#">Procedure for Verifying CBM Values</a>                                                                                                            | I.E.2.M3                                          | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and implement a procedure to periodically review (at least annually) and ensure that the TTC and ATC calculations and resulting values of member Transmission Service Providers comply with the Regional TTC and ATC methodology and applicable Regional criteria.                                                                                                                                                                  | MRO recommended to review and modify procedures to review compliance with regional methodology     | Ownership assigned to Compliance for further assignment to committee or staff |                                |
| MOD-006-0 | <a href="#">Procedures for Use of CBM Values</a>                                                                                                              | I.E.2.M4 ADR Procedure MAIN Guide 11              | Each Regional Reliability Organization shall report compliance and violations to NERC via the NERC compliance reporting process.                                                                                                                                                                                                                                                                                                                                                                                               | MRO recommended to review process for reporting use and violations of the CBM                      | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| MOD-007-0 | <a href="#">Documentation of the Use of CBM</a>                                                                                                               | I.E.2.M5                                          | R1. Each Transmission Service Provider that uses CBM shall report (to the Regional Reliability Organization, NERC and the transmission users) the use of CBM by the Load-Serving Entities Loads on its system, except for CBM sales as Non-Firm Transmission Service. (This use of CBM shall be consistent with the Transmission Service Provider's procedure for use of CBM.)                                                                                                                                                 | MRO recommended to review process for reporting use and violations of the CBM                      | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| MOD-008-0 | <a href="#">Documentation and Content of Each Regional TRM Methodology</a>                                                                                    | I.E.2.M6 MAPP Appendix 6A, Subsection B           | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional TRM methodology. The Region's TRM methodology shall specify or describe each of the following five items, and shall explain its use, if any, in determining TRM values. Other items that are Region-specific or that are considered in each respective Regional methodology shall also be explained along with their use in determining TRM values.                                                         | MRO recommend to review and modify as necessary the TRM methodology                                | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| MOD-009-0 | <a href="#">Procedure for Verifying TRM Values</a>                                                                                                            | I.E.2.M8                                          | R1. Each Regional Reliability Organization, in conjunction with its members, shall develop and implement a procedure to review Transmission Reliability Margin (TRM) calculations and resulting values of member Transmission Service Providers to ensure they comply with the Regional TRM methodology, and are periodically updated and available to transmission users.                                                                                                                                                     | MRO recommended to review and modify TRM procedures to review compliance with regional methodology | Ownership assigned to RAC for further assignment to committee or staff        |                                |


| Number    | <br><small>Acrobat Document</small> | <b>RO/MAIN Standards<br/>Reliability Standards</b><br><b>Version 0 Attached as .pdf</b> | <b>Former MAIN-MAPP<br/>Standards/Guides/Polici<br/>es</b> | <b>Version 0 Requirement (from Standards Committee worksheet)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Drafting Team<br/>recommendations for<br/>MRO Procedure, Criteria,<br/>and Plans</b>                                                               | <b>Review and Drafting Support<br/>Requested From (Discussion<br/>stage)</b> | <b>Anticipated<br/>Completion Date</b> |
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| MOD-011-0 |                                                                                                                      | <a href="#">Regional Steady-State Data Requirements and Reporting Procedures</a>        | II.A.M2 MAIN MMWG Procedures                               | <p>R1. The Regional Reliability Organizations within an Interconnection, in conjunction with the Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners, shall develop comprehensive steady-state data requirements and reporting procedures needed to model and analyze the steady-state conditions for each of the NERC Interconnections: Eastern, Western, and ERCOT. Within an Interconnection, the Regional Reliability Organizations shall jointly coordinate the development of the data requirements and reporting procedures for that Interconnection.</p> <p>R2. The Regional Reliability Organizations within an Interconnection shall document their Interconnection's steady-state data requirements and reporting procedures, shall review those data requirements and reporting procedures (at least every five years), and shall make the data requirements and reporting procedures available on request (within five business days) to Regional Reliability Organizations, NERC, and all users of the interconnected transmission systems.</p>                                                                                     | MRO recommended to review and modify steady-state data requirements and reporting procedures needed to model and analyze the steady-state conditions. | Ownership assigned to RAC for further assignment to committee or staff       |                                        |
| MOD-013-0 |                                                                                                                      | <a href="#">RRO Dynamics Data Requirements and Reporting Procedures</a>                 | II.A.M4 MAIN MMWG Procedures                               | <p>R1. The Regional Reliability Organization, in coordination with its Transmission Owners, Transmission Planners, Generator Owners, and Resource Planners, shall develop comprehensive dynamics data requirements and reporting procedures needed to model and analyze the dynamic behavior or response of each of the NERC Interconnections: Eastern, Western, and ERCOT. Within an Interconnection, the Regional Reliability Organizations shall jointly coordinate on the development of the data requirements and reporting procedures for that Interconnection. Each set of Interconnection-wide dynamics data requirements shall include the following dynamics data requirements: (See standard for details)</p> <p>R2. The Regional Reliability Organization shall participate in the documentation of its Interconnection's data requirements and reporting procedures and, shall participate in the review of those data requirements and reporting procedures (at least every five years), and shall provide those data requirements and reporting procedures to Regional Reliability Organizations, NERC, and all users of the Interconnected systems on request</p> | MRO recommended to coordinate on the development of the data requirements and reporting procedures.                                                   | Ownership assigned to RAC for further assignment to committee or staff       |                                        |


| Number    | <br><small>Acrobat Document</small> | <b>MRO/MAIN Standards<br/>Reliability Standards<br/>Version 0 Attached as .pdf</b> | <b>Former MAIN-MAPP<br/>Standards/Guides/Polici<br/>es</b> | <b>Version 0 Requirement (from Standards Committee worksheet)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Drafting Team<br/>recommendations for<br/>MRO Procedure, Criteria,<br/>and Plans</b>                                                                                                                                             | <b>Review and Drafting Support<br/>Requested From (Discussion<br/>stage)</b>  | <b>Anticipated<br/>Completion Date</b> |
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| MOD-014-0 |                                                                                                                      | <a href="#">Development of Interconnection-Specific Steady State System Models</a> | II.A.M5 main Guide 2                                       | <p>R1. The Regional Reliability Organization(s) within each Interconnection shall coordinate and jointly develop and maintain a library of solved (converged) Interconnection-specific steady state system models. The Interconnection-specific models shall include near- and longer-term planning horizons that are representative of system conditions for projected seasonal peak, minimum, and other appropriate system demand levels.</p> <p>R2. The Regional Reliability Organization(s) within each Interconnection shall coordinate and jointly develop steady-state system models annually for selected study years, as determined by the Regional Reliability Organizations within its Interconnection. The Regional Reliability Organization shall provide the most recent solved (converged) Interconnection-specific steady state models to NERC in accordance with each Interconnection's schedule for submission.</p> | <p>MRO recommended to review and modify criteria that establish consistent data requirements, reporting procedures, and system models to be used in the analysis of the reliability of the interconnected transmission systems.</p> | <p>Ownership assigned to RAC for further assignment to committee or staff</p> |                                        |
| MOD-015-0 |                                                                                                                      | <a href="#">Development of Interconnection-Specific Dynamics System Models</a>     | II.A.M6 MAIN Guide 2                                       | <p>R1. The Regional Reliability Organization(s) within each Interconnection shall coordinate and jointly develop and maintain a library of initialized (with no Faults or system Disturbances) Interconnection-specific dynamics system models linked to the steady-state system models, as appropriate, of Reliability Standard MOD-014-0_R1.</p> <p>R2. The Regional Reliability Organization(s) within each Interconnection shall develop Interconnection dynamics system models for their Interconnection annually for selected study years as determined by the Regional Reliability Organization(s) within each Interconnection and shall provide the most recent initialized (approximately 25 seconds, no-fault) models to NERC in accordance with each Interconnection's schedule for submission.</p>                                                                                                                        | <p>MRO recommended to review, modify and maintain a library of initialized Interconnection-specific dynamics system models linked to the steady-state system models</p>                                                             | <p>Ownership assigned to RAC for further assignment to committee or staff</p> |                                        |

| Number                            | <br><small>Acrobat Document</small> | <b>RO/MAIN Standards<br/>Reliability Standards<br/>Version 0 Attached as .pdf</b>  | <b>Former MAIN-MAPP<br/>Standards/Guides/Polici<br/>es</b>                 | <b>Version 0 Requirement (from Standards Committee worksheet)</b>                                                                                                                                                                                                                                                                                               | <b>Drafting Team<br/>recommendations for<br/>MRO Procedure, Criteria,<br/>and Plans</b>                                                                                                                                     | <b>Review and Drafting Support<br/>Requested From (Discussion<br/>stage)</b> | <b>Anticipated<br/>Completion Date</b> |
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| MOD-016-0                         |                                                                                                                      | <a href="#">Actual and Forecast Demands, Net Energy for Load, Controllable DSM</a> | II.D.M1 MAIN Guide 2<br>MAIN Guide 4                                       | R1. The Planning Authority and Regional Reliability Organization shall have documentation identifying the scope and details of the actual and forecast (a) Demand data, (b) Net Energy for Load data, and (c) controllable DSM data to be reported for system modeling and reliability analyses.                                                                | modify documentation identifying the scope and details of the actual and forecast (a) Demand data, (b) Net Energy for Load data, and (c) controllable DSM data to be reported for system modeling and reliability analyses. | Ownership assigned to RAC for further assignment to committee or staff       |                                        |
| MOD-017-0                         |                                                                                                                      | <a href="#">Aggregated Actual and Forecast Demands and Net Energy for Load</a>     | II.D.M4 MAIN Guide 2<br>MAIN Guide 4                                       | R1. The Load-Serving Entity, Planning Authority and Resource Planner shall each provide the following information annually on an aggregated Regional, subregional, Power Pool, individual system, or Load-Serving Entity basis to NERC, the Regional Reliability Organizations, and any other entities specified by the documentation in Standard MOD-016-0_R1. | MRO recommended to review and modify procedures to collect and share data                                                                                                                                                   | Ownership assigned to RAC for further assignment to committee or staff       |                                        |
| MOD-018-0                         |                                                                                                                      | <a href="#">Reports of Actual and Forecast Demand Data</a>                         | II.D.M6 MAIN Guide 2<br>MAIN Guide 4                                       | R2. The Load-Serving Entity, Planning Authority, Transmission Planner and Resource Planner shall each report data associated with Reliability Standard MOD-018-0_R1 to NERC, the Regional Reliability Organization, Load-Serving Entity, Planning Authority, and Resource Planner on request (within 30 calendar days).                                         | MRO recommended to review and modify reporting requirements                                                                                                                                                                 | Ownership assigned to RAC for further assignment to committee or staff       |                                        |
| <b>Organization Certification</b> |                                                                                                                      |                                                                                    |                                                                            |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                             |                                                                              |                                        |
| Proposed NERC SAR                 |                                                                                                                      | <a href="#">Resource Adequacy Assessments</a>                                      |                                                                            |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                             | Ownership assigned to Standards for delegation to Staff                      |                                        |
| Proposed MRO Standard             |                                                                                                                      | <a href="#">Generation Reserve Planning</a>                                        |                                                                            |                                                                                                                                                                                                                                                                                                                                                                 | MRO Proposed Standard                                                                                                                                                                                                       | Ownership assigned to RAC for further assignment to committee or staff       |                                        |
| <b>Protection and Control</b>     |                                                                                                                      |                                                                                    |                                                                            |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                             |                                                                              |                                        |
| PRC-002-0                         |                                                                                                                      | <a href="#">Define and Document Disturbance Monitoring Equipment Requirements</a>  | I.F.M1 I.F.M3 MAPP Appendix 4A MAIN Guide 2 MAIN Guide 10<br>MAIN Guide 12 | R1. The Regional Reliability Organization shall develop comprehensive requirements for the installation of Disturbance monitoring equipment to ensure data is available to determine system performance and the causes of System Disturbances. The comprehensive requirements shall include all of the following: (See standard for details)                    | MRO recommended to review and modify procedures that define and document Disturbance Monitoring Equipment criteria                                                                                                          | Ownership assigned to RAC for further assignment to committee or staff       |                                        |

| Number    |  RO/MAIN Standards<br>Reliability Standards<br>Version 0 Attached as .pdf | Former MAIN-MAPP<br>Standards/Guides/Polices                     | Version 0 Requirement (from Standards Committee worksheet)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Drafting Team<br>recommendations for<br>MRO Procedure, Criteria,<br>and Plans                                                                            | Review and Drafting Support<br>Requested From (Discussion<br>stage)    | Anticipated<br>Completion Date |
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| PRC-003-0 | <a href="#">Regional Procedure for Transmission Protection System Misoperations</a>                                                                        | III.A.M3 MAIN Guide 10 Appendix A MAPP Appendix 4D, Subsection A | R1. Each Regional Reliability Organization shall have a procedure for the monitoring, review, analysis, and correction of all transmission protection system misoperations. Each Regional Reliability Organization's procedure shall include the following elements: (See standard for details)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | MRO recommended to review and modify procedures for the monitoring, review, analysis, and correction of all transmission protection system misoperations | Ownership assigned to RAC for further assignment to committee or staff |                                |
| PRC-004-0 | <a href="#">Analysis and Reporting of Transmission Protection System Misoperations</a>                                                                     | III.A.M5 MAIN Guide 10                                           | R2. The Transmission Owner, Generator Owner, and Distribution Provider that owns a transmission protection system shall provide to its affected Regional Reliability Organization and NERC on request (within 30 calendar days) documentation of the misoperations analyses and corrective actions according to the Regional Reliability Organization's procedures of Reliability Standard PRC-003-0_R1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | MRO recommended to review and modify procedures for reporting documentation of the misoperations analyses and corrective actions                         | Ownership assigned to RAC for further assignment to committee or staff |                                |
| PRC-005-0 | <a href="#">Transmission Protection System Maintenance and Testing</a>                                                                                     | III.A.M4 MAIN Guide 10 Appendix C                                | R2. The Transmission Owner, Generator Owner, and Distribution Provider that owns a transmission protection system shall provide documentation of its transmission protection system program and its implementation to the appropriate Regional Reliability Organization and NERC on request (within 30 calendar days).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MRO to review and modify procedures for documentation of its transmission protection system program and its implementation                               | Ownership assigned to RAC for further assignment to committee or staff |                                |
| PRC-006-0 | <a href="#">Development and Documentation of Regional UFLS Programs</a>                                                                                    | III.D.M1 MAIN Guide 1B MAIN Guide 10                             | R1. Each Regional Reliability Organization shall develop, coordinate, and document an UFLS program, which shall include the following: (See standard for details)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | MRO recommended to review, further develop, coordinate, and document an UFLS program                                                                     | Ownership assigned to RAC for further assignment to committee or staff |                                |
| PRC-007-0 | <a href="#">Assuring Consistency with Regional UFLS Programs</a>                                                                                           | III.D.M2 MAIN Guide 1B MAIN Guide 10                             | R1. The Transmission Owner and Distribution Provider, with a UFLS program (as required by its Regional Reliability Organization) shall ensure that its UFLS program is consistent with its Regional Reliability Organization's UFLS program requirements. R2. The Transmission Owner, Transmission Operator, Distribution Provider, and Load-Serving Entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide, and annually update, its underfrequency data as necessary for its Regional Reliability Organization to maintain and update a UFLS program database. R3. The Transmission Owner and Distribution Provider that owns a UFLS program (as required by its Regional Reliability Organization) shall provide its documentation of that UFLS program to its Regional Reliability Organization on request (30 calendar days). | MRO recommended to review, further develop, coordinate, and document an UFLS program                                                                     | Ownership assigned to RAC for further assignment to committee or staff |                                |

| Number    |  RO/MAIN Standards<br>Reliability Standards<br>Version 0 Attached as .pdf | Former MAIN-MAPP<br>Standards/Guides/Policies                          | Version 0 Requirement (from Standards Committee worksheet)                                                                                                                                                                                                                                                                                                                                           | Drafting Team<br>recommendations for<br>MRO Procedure, Criteria,<br>and Plans                                                 | Review and Drafting Support<br>Requested From (Discussion<br>stage)           | Anticipated<br>Completion Date |
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| PRC-008-0 | <a href="#">Under frequency Load Shedding<br/>Equipment Maintenance Programs</a>                                                                           | III.D.M3 MAIN Guide 10                                                 | R2. The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall implement its UFLS equipment maintenance and testing program and shall provide UFLS maintenance and testing program results to its Regional Reliability Organization and NERC on request (within 30 calendar days).                                            | MRO recommended to review, further develop, coordinate, and document an UFLS program                                          | Ownership assigned to Compliance for further assignment to committee or staff |                                |
| PRC-009-0 | <a href="#">UFLS Performance Following an Underfrequency Event</a>                                                                                         | III.D.M4 MAIN Guide 10                                                 | and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall analyze and document its UFLS program performance in accordance with its Regional Reliability Organization's UFLS program. The analysis shall address the performance of UFLS equipment and program effectiveness following system events                                | MRO recommended to review, further develop, coordinate, and document an UFLS program                                          | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| PRC-010-0 | <a href="#">Assessment of the Design and Effectiveness of UVLS Program</a>                                                                                 | III.E.M3 MAIN Guide 10                                                 | R2. The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall provide documentation of its current UVLS program assessment to its Regional Reliability Organization and NERC on request (30 calendar days).                                                                                                           | MRO recommended to review, further develop, coordinate, and document an UFLS program                                          | Ownership assigned to Compliance for further assignment to committee or staff |                                |
| PRC-011-0 | <a href="#">UVLS System Maintenance and Testing</a>                                                                                                        | III.E.M4 MAIN Guide 10                                                 | R2. The Transmission Owner and Distribution Provider that owns a UVLS system shall provide documentation of its UVLS equipment maintenance and testing program and the implementation of that UVLS equipment maintenance and testing program to its Regional Reliability Organization and NERC on request (within 30 calendar days).                                                                 | MRO recommended to review, further develop, coordinate, and document an UFLS program                                          | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| PRC-012-0 | <a href="#">Special Protection System Review Procedure</a>                                                                                                 | III.F.M1 MAIN Guide 10<br>Appendix B MAPP<br>Appendix 4B, Subsection B | R1. Each Regional Reliability Organization with a Transmission Owner, Generator Owner, or Distribution Providers that uses or is planning to use an SPS shall have a documented Regional Reliability Organization SPS review procedure to ensure that SPSs comply with Regional criteria and NERC Reliability Standards. The Regional SPS review procedure shall include: (See standard for details) | MRO recommended to review and modify program to ensure that there is a plan to use an SPS and its associated review procedure | Ownership assigned to RAC for further assignment to committee or staff        |                                |

| Number                         | <br>RO/MAIN Standards<br>Reliability Standards<br>Version 0 Attached as .pdf | Former MAIN-MAPP<br>Standards/Guides/Polici<br>es | Version 0 Requirement (from Standards Committee worksheet)                                                                                                                                                                                                                                                                                                                                                                | Drafting Team<br>recommendations for<br>MRO Procedure, Criteria,<br>and Plans                                                                                                                   | Review and Drafting Support<br>Requested From (Discussion<br>stage)           | Anticipated<br>Completion Date |
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| PRC-013-0                      | <a href="#">Special Protection System Database</a>                                                                                                            | III.F.M2 MAIN Guide 10                            | R1. The Regional Reliability Organization that has a Transmission Owner, Generator Owner, or Distribution Provider with an SPS installed shall maintain an SPS database. The database shall include the following types of information: (See standard for details)                                                                                                                                                        | MRO recommended to review and modify database that contains SPS information                                                                                                                     | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| PRC-014-0                      | <a href="#">Special Protection System Assessment</a>                                                                                                          | III.F.M3 MAIN Guide 10                            | R1. The Regional Reliability Organization shall assess the operation, coordination, and effectiveness of all SPSs installed in its Region at least once every five years for compliance with NERC Reliability Standards and Regional criteria.                                                                                                                                                                            | MRO recommended to review and modify procedures that assess the operation, coordination, testing, maintenance, and effectiveness of all SPSS installed                                          | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| Proposed<br>MRO<br>Standard    | <a href="#">Power System Stabilizer</a>                                                                                                                       | MAPP Policy 4 III.C.M1                            |                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                 | Ownership assigned to RAC for further assignment to committee or staff        |                                |
| <b>Transmission Operations</b> |                                                                                                                                                               |                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                 |                                                                               |                                |
| TOP-003-0                      | <a href="#">Planned Outage Coordination</a>                                                                                                                   | Policy 4 Section C T4P4                           | A Reliability Coordinator makes a request for an outage to "not be taken" because of a reliability impact on the grid and the outage is still taken. The Reliability Coordinator must provide all its documentation within three business days to the Regional Reliability Organization. Each Regional Reliability Organization shall report compliance and violations to NERC via the NERC Compliance Reporting process. | MRO recommended to review and modify procedures to initiate an investigation                                                                                                                    | Ownership assigned to Compliance for further assignment to committee or staff |                                |
| TOP-007-0                      | <a href="#">Reporting SOL and IROL Violations</a>                                                                                                             | Policy 2 Section A P2T1                           | The Reliability Coordinator shall report any IROL violation exceeding 30 minutes to the Regional Reliability Organization and NERC within 72 hours. Each Regional Reliability Organization shall report any such violations to NERC via the NERC compliance reporting process. The Reliability Coordinator shall report any SOL violation that has become an IROL violation because of changed system conditions          | MRO recommended to review and modify reporting procedures for IROL events                                                                                                                       | Ownership assigned to Compliance for further assignment to committee or staff |                                |
| <b>Transmission Planning</b>   |                                                                                                                                                               |                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                 |                                                                               |                                |
| TPL-005-0                      | <a href="#">Regional and Interregional Self-Assessment Reliability Reports</a>                                                                                | I.B.M1 MAIN Guide 2<br>MAIN Guide 8               | R1. Each Regional Reliability Organization shall annually conduct reliability assessments of its respective existing and planned Regional Bulk Electric System (generation and transmission facilities) for: (See standard for details)                                                                                                                                                                                   | MRO recommended to review and modify its criteria to annually conduct reliability assessments of its respective existing and planned Regional Bulk Electric System (generation and transmission | Ownership assigned to RAC for further assignment to committee or staff        |                                |

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|-----------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------------|
| TPL-006-0                   |                                                                                                                      | <a href="#">Assessment Data from Regional Reliability Organizations</a>            | I.B.M2 MAIN Guide 2<br>MAIN Guide 8                         | R1. Each Regional Reliability Organization shall provide, as requested (seasonally, annually, or as otherwise specified) by NERC, system data, including past, existing, and future facility and Bulk Electric System data, reports, and system performance information, necessary to assess reliability and compliance with the NERC Reliability Standards and the respective Regional planning criteria. The facility and Bulk Electric System data, reports, and system performance information shall include, but not be limited to, one or more of the following types of information as outlined below: (See standard for details) | MRO recommended to develop procedures and criteria to ensure that the MRO complies with planning criteria, for assessing the overall reliability (Adequacy and Security) of the interconnected Bulk Electric Systems, both existing and as planned. | Ownership assigned to RAC for further assignment to committee or staff       |                                        |
| Proposed MRO Standard       |                                                                                                                      | <a href="#">System Performance</a>                                                 | I.A.M1 MAIN Guide 2<br>MAIN Guide 8                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Proposed New MRO Standard                                                                                                                                                                                                                           | Ownership assigned to RAC for further assignment to committee or staff       |                                        |
| Proposed MRO Standard       |                                                                                                                      | <a href="#">Subsynchronous Resonance</a>                                           | III.B MAPP Policy 2                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Proposed New MRO Standard                                                                                                                                                                                                                           | Ownership assigned to RAC for further assignment to committee or staff       |                                        |
| <b>Voltage and Reactive</b> |                                                                                                                      |                                                                                    |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                     |                                                                              |                                        |
| VAR-001-1                   |                                                                                                                      | <a href="#">Voltage and Reactive Control</a>                                       | MAPP Handbook 6.3.3.1<br>Policy 2 Section B MAIN<br>Guide 2 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MRO recommended to develop a guide on appropriate Operating Procedures                                                                                                                                                                              | Ownership assigned to RAC for further assignment to committee or staff       |                                        |

**Agenda 6.a.**  
**Procedures Assignments**  
Under Frequency Load Shedding

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**Agenda 6.b.**  
**Procedures Assignments**  
Disturbance Monitoring Equipment Locations

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**Agenda 6.c.**  
**Procedures Assignments**  
MAPP Members Reliability Criteria and Study Procedures Manual

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# **MAPP Members Reliability Criteria and Study Procedures Manual**

**Prepared by:  
MAPP Planning Standards Development Working Group**

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St. Paul, MN 55108-5001  
Phone: (651) 632-8400

Distribution Status: Limited  
Revised: November 19, 2004



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## Introduction

This document outlines the specific MAPP bulk transmission reliability criteria and study methods, assumptions, and procedures, which are to be used for MAPP planning and operating studies. It also describes their relationship to the MAPP Planning Standards and MAPP Operating Standards.

This document provides deterministic criteria for use in MAPP system studies so that a sound basis of comparison exists between MAPP system performance studies. It also provides a set of evaluation criteria and study guidelines from which individual MAPP members' study scopes, procedures, and reports can be produced.

Part I of this document sets forth the specific bulk transmission reliability criteria established by Transmission Owners and Transmission Providers in MAPP. These specific reliability criteria are in addition to the general criteria outlined in the MAPP Planning Standards and/or MAPP Operating Standards.

Part II of this document sets forth the general considerations and recommended study procedures for planning and operating studies conducted for the MAPP region that will ensure power system study results are based upon accepted and consistent procedures. Any differences between the procedures for planning or operating studies are noted.

The Appendices included in Part II outline recommended requirements for a study report. The appropriate transmission approval authority should be contacted to confirm the applicable study and reporting requirements.

The MAPP Planning Subcommittee (PSC) maintains this document. This document will be periodically updated and/or revised as Transmission Owner and Transmission Provider criteria, operating limits, interface definitions, analysis techniques, utilities' operating practices, and study philosophies evolve.

The capitalized terms in this document have the same definitions as in the MAPP Planning Standards and/or MAPP Operating Standards. Any additional capitalized key words are defined in this document. All definitions are consistent with current NERC, MAPP, and IEEE documents.

**Agenda 6.d.**  
**Procedures Assignments**  
Transition to MRO Standards And Procedures

---

## **Discussion Paper Transition of Regional Standards and Procedures (MAIN and MAPP) to MRO Standards**

### **1) Collect and List**

- Identify and consolidate all regional standards into single list
- Are there key procedures associated with standards?
- Identify standards owner – Who can identify criteria for elimination?

### **2) Compare to NERC Version 0 Standards**

- Are there overlaps which result in regional standards being duplicates?

### **3) Review Combine Lists Developed**

- Are there any issues that need separate or temporary transition within the regional standard?
- Develop a “transition starting point”

### **4) Develop Process to Propose and Approve Standards for Elimination**

- Identify approving process to eliminate regional standards
- Gain tentative approval
  - No unknown issues preventing standard/procedure elimination

### **5) Verify that New Standards/Procedures are ready**

- New standards/procedures are in place (if applicable)

### **6) Develop appropriate transition plan to migrate to new standard or elimination of regional standard**

- Include any special issues identified
- Coordinate with Compliance

### **7) Notify and communicate to all parties involved transition plan.**

- Communications is critical to transition success
- Gain confirmation or agreement in writing

### **8) Implement and Document Transition Plan**

| Standard                                                       | Procedure                                                                                                                    | Responsible Party                                                                                                                                | Effective Date | Needs Update |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------|
| <b>Resource and Demand Balancing</b>                           |                                                                                                                              |                                                                                                                                                  |                |              |
| BAL-002-0                                                      | Disturbance Control Performance                                                                                              | Regional Reliability Organization, Balancing Authority, Reserve Sharing Pool                                                                     | April 1, 2005  | No           |
| Proposed MRO Standard                                          |                                                                                                                              | Ownership assigned to GRSP for further assignment to committee or staff                                                                          |                | Yes          |
| BAL-005-0                                                      | Automatic Generation Control                                                                                                 | Transmission Operator, Load-Serving Entity, Generator Operator, Balancing Authority                                                              | April 1, 2005  | No           |
| BAL-006-0                                                      | Inadvertent Interchange                                                                                                      | Balancing Authority                                                                                                                              | April 1, 2005  | No           |
| <b>Emergency Preparedness and Operations</b>                   |                                                                                                                              |                                                                                                                                                  |                |              |
| EOP-002-0                                                      | Capacity and Energy Emergencies                                                                                              | Reliability Coordinator, Balancing Authority                                                                                                     | April 1, 2005  | No           |
| EOP-004-0                                                      | Regional Reporting Procedure                                                                                                 | Regional Reliability Organization                                                                                                                | April 1, 2005  | No           |
| EOP-005-0                                                      | Restoration Plan                                                                                                             | Transmission Operator                                                                                                                            | April 1, 2005  | No           |
| EOP-007-0                                                      | Regional Blackstart Capability Plan                                                                                          | Regional Reliability Organization                                                                                                                | April 1, 2005  | No           |
| <b>Facilities Design, Connections and Maintenance</b>          |                                                                                                                              |                                                                                                                                                  |                |              |
| FAC-001-0                                                      | Facility Connection Requirements                                                                                             | Transmission Owner                                                                                                                               | April 1, 2005  | No           |
| FAC-002-0                                                      | Coordination of Plans For New Generation, Transmission, and End-User                                                         | Generator Owner, Transmission Owner, Distribution Provider, Load-Serving Entity, Transmission Planner, Planning Authority, Distribution Provider | April 1, 2005  | No           |
| FAC-003-0                                                      | Vegetation Management Plan                                                                                                   | Transmission Operator                                                                                                                            | April 1, 2005  | No           |
| FAC-004-0                                                      | Methodologies for Determining Electrical Facility Ratings                                                                    | Transmission Owner, Generator Owner                                                                                                              | April 1, 2005  | No           |
| <b>Interconnection Reliability Operations and Coordination</b> |                                                                                                                              |                                                                                                                                                  |                |              |
| IRO-001-0                                                      | Reliability Coordination – Responsibilities and Authorities                                                                  | Reliability Coordinators, Regional Reliability Organizations                                                                                     | April 1, 2005  | No           |
| IRO-006-0                                                      | Transmission Loading Relief Procedure, Interconnection-wide Procedure                                                        | Reliability Coordinator                                                                                                                          | April 1, 2005  | No           |
| <b>Modeling, Data, and Analysis</b>                            |                                                                                                                              |                                                                                                                                                  |                |              |
| MOD-001-0                                                      | Documentation of Total Transfer Capability and Available Transfer Capability Calculation Methodologies                       | Regional Reliability Organization                                                                                                                | April 1, 2005  | No           |
| MOD-002-0                                                      | Review of Transmission Service Provider Total Transfer Capability and Available Transfer Capability Calculations and Results | Regional Reliability Organization                                                                                                                | April 1, 2005  | No           |
| MOD-003-0                                                      | Receiving Input for ATC and TTC Methodologies                                                                                | Regional Reliability Organization                                                                                                                | April 1, 2005  | No           |
| MOD-004-0                                                      | CBM Methodology Documentation                                                                                                | Regional Reliability Organization                                                                                                                | April 1, 2005  | No           |
| MOD-005-0                                                      | Regional CBM Calculations                                                                                                    | Regional Reliability Organization                                                                                                                | April 1, 2005  | No           |
| MOD-006-0                                                      | Capacity Benefit Margin (CBM)                                                                                                | Transmission Service Provider                                                                                                                    | April 1, 2005  | No           |
| MOD-007-0                                                      | Documentation of Use of CBM                                                                                                  | Transmission Service Provider                                                                                                                    | April 1, 2005  | No           |
| MOD-008-0                                                      | Regional TRM Methodology                                                                                                     | Regional Reliability Organization                                                                                                                | April 1, 2005  | No           |

|                                   |                                                                                                                                            |                                                                                         |               |     |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------|-----|
| MOD-009-0                         | Verify TRM Values                                                                                                                          | Regional Reliability Organization                                                       | April 1, 2005 | No  |
| MOD-011-0                         | Regional Steady-State Data Requirements and Reporting Procedure                                                                            | Regional Reliability Organization                                                       | April 1, 2005 | No  |
| MOD-013-0                         | RRO Dynamics Data Requirements and Reporting Procedure                                                                                     | Regional Reliability Organization                                                       | April 1, 2005 | No  |
| MOD-014-0                         | Development of Steady-State System Models                                                                                                  | Regional Reliability Organization                                                       | April 1, 2005 | No  |
| MOD-015-0                         | Development of Dynamics System Models                                                                                                      | Regional Reliability Organization                                                       | April 1, 2005 | No  |
| MOD-016-0                         | Documentation of Data Reporting Requirements for Actual and Forecast Demands, Net Energy for Load, and Controllable Demand-Side Management | Regional Reliability Organization, Planning Authority                                   | April 1, 2005 | No  |
| MOD-017-0                         | Aggregated Actual and Forecast Demands and Net Energy for Load                                                                             | Load-Serving Entity, Planning Authority, Resource Planner                               | April 1, 2005 | No  |
| MOD-018-0                         | Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load                  | Load-Serving Entity, Planning Authority, Transmission Planner, Resource Planner         | April 1, 2005 | No  |
| <b>Organization Certification</b> |                                                                                                                                            |                                                                                         |               |     |
| Proposed NERC SAR                 |                                                                                                                                            | Ownership assigned to Standards for delegation to Staff                                 |               | Yes |
| Proposed MRO Standard             |                                                                                                                                            | Ownership assigned to RAC for further assignment to committee or staff                  |               | Yes |
| <b>Protection and Control</b>     |                                                                                                                                            |                                                                                         |               |     |
| PRC-002-0                         | Define and Document Disturbance Monitoring Equipment Requirements                                                                          | Regional Reliability Organization                                                       | April 1, 2005 | No  |
| PRC-003-0                         | Regional Procedure for Transmission Protection System Misoperations                                                                        | Regional Reliability Organization                                                       | April 1, 2005 | No  |
| PRC-004-0                         | Analysis and Reporting of Transmission Protection System Misoperations                                                                     | Transmission Owner, Generator Owner, Distribution Provider                              | April 1, 2005 | No  |
| PRC-005-0                         | Transmission Protection System Maintenance and Testing                                                                                     | Transmission Owner, Generator Owner, Distribution Provider                              | April 1, 2005 | No  |
| PRC-006-0                         | Development and Documentation of Regional Reliability Organizations' Underfrequency Load Shedding Programs                                 | Regional Reliability Organization                                                       | April 1, 2005 | No  |
| PRC-007-0                         | Assuring Consistency with Regional UFLS Program Requirements                                                                               | Transmission Operator, Load-Serving Entity, Transmission Owner, Distribution Provider   | April 1, 2005 | No  |
| PRC-008-0                         | Underfrequency Load Shedding Equipment Maintenance Programs                                                                                | Transmission Owner, Distribution Provider                                               | April 1, 2005 | No  |
| PRC-009-0                         | UFLS Performance Following an Underfrequency Event                                                                                         | Transmission Operator, Load-Serving Entity, Transmission Owner, Distribution Provider   | April 1, 2005 | No  |
| PRC-010-0                         | Assessment of the Design and Effectiveness of UVLS Program                                                                                 | Transmission Operator, Load-Serving Entity, Transmission Owner, Distribution Provider   | April 1, 2005 | No  |
| PRC-011-0                         | UVLS System Maintenance and Testing                                                                                                        | Transmission Owner, Distribution Provider                                               | April 1, 2005 | No  |
| PRC-012-0                         | Special Protection System Review Procedure                                                                                                 | Regional Reliability Organization                                                       | April 1, 2005 | No  |
| PRC-013-0                         | Special Protection System Database.                                                                                                        | Regional Reliability Organization                                                       | April 1, 2005 | No  |
| PRC-014-0                         | Special Protection System Assessment                                                                                                       | Regional Reliability Organization                                                       | April 1, 2005 | No  |
| Proposed MRO Standard             |                                                                                                                                            | Ownership assigned to RAC for further assignment to committee or staff                  |               | Yes |
| <b>Transmission Operations</b>    |                                                                                                                                            |                                                                                         |               |     |
| TOP-003-0                         | Planned Outage Coordination                                                                                                                | Transmission Operator, Reliability Coordinator, Generator Operator, Balancing Authority | April 1, 2005 | No  |

|                              |                                                                |                                                                        |               |     |
|------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------|---------------|-----|
| TOP-007-0                    | Reporting SOL and IROL Violations                              | Transmission Operator, Reliability Coordinator                         | April 1, 2005 | No  |
| <b>Transmission Planning</b> |                                                                |                                                                        |               |     |
| TPL-005-0                    | Regional and Interregional Self-Assessment Reliability Reports | Regional Reliability Organization                                      | April 1, 2005 | No  |
| TPL-006-0                    | Assessment Data from Regional Reliability Organizations        | Regional Reliability Organization                                      | April 1, 2005 | No  |
| Proposed MRO Standard        |                                                                | Ownership assigned to RAC for further assignment to committee or staff |               | Yes |
| Proposed MRO Standard        |                                                                | Ownership assigned to RAC for further assignment to committee or staff |               | Yes |
| <b>Voltage and Reactive</b>  |                                                                |                                                                        |               |     |
| VAR-001-1                    | Voltage and Reactive Control                                   | Transmission Operator, Generator Operator, Purchasing-Selling Entity   | April 1, 2005 | No  |

Procedures Worksheet

8/12/2005

|                                                                                                   |      |           |                                                             |                  |
|---------------------------------------------------------------------------------------------------|------|-----------|-------------------------------------------------------------|------------------|
| 2.1 Power Flow Model                                                                              |      |           | MAPP Members Reliability Criteria and Study Procedures      |                  |
| 2.2 Dynamic Simulation                                                                            | RAC  | MOD-015-0 | MAPP Members Reliability Criteria and Study Procedures      |                  |
| 2.3 ATC Calculation and Posting                                                                   | RAC  | MOD-003-0 | MAPP Policies & Procedures for Transmission Operations Book | April 11, 2005   |
| 2.3 Post-disturbance Power flow                                                                   |      |           | MAPP Members Reliability Criteria and Study Procedures      |                  |
| 2.4 ATC Component Data                                                                            | RAC  | MOD-003-0 | MAPP Policies & Procedures for Transmission Operations Book | April 11, 2005   |
| 2.6 Processing Transmission Requests on the MAPP OASIS                                            | RAC  |           | MAPP Policies & Procedures for Transmission Operations Book | April 11, 2005   |
| 2.7. Evaluation of Firm Service on the MAPP OASIS                                                 | RAC  |           | MAPP Policies & Procedures for Transmission Operations Book | April 11, 2005   |
| 2.8 Evaluation of Non-firm Tariff Services                                                        | RAC  |           | MAPP Policies & Procedures for Transmission Operations Book | April 11, 2005   |
| 2.9 Request Re-Evaluation                                                                         | RAC  |           | MAPP Policies & Procedures for Transmission Operations Book | April 11, 2005   |
| 3.1 System Emergencies                                                                            | RAC  | EOP-004-0 | MAPP Policies & Procedures for Transmission Operations Book | April 11, 2005   |
| 3.2 New Facility Guides Study Procedure                                                           |      |           | MAPP Members Reliability Criteria and Study Procedures      |                  |
| 3.2 Request Transmission Service for Accreditation                                                | RAC  |           | MAPP Policies & Procedures for Transmission Operations Book | April 11, 2005   |
| 3.3 Transmission Service Charges for Service Schedule B                                           | RAC  |           | MAPP Policies & Procedures for Transmission Operations Book | April 11, 2005   |
| 3.4 Schedule D: Operating Reserve Service                                                         | RAC  |           | MAPP Policies & Procedures for Transmission Operations Book | April 11, 2005   |
| 4.1.1. Generation Control and Performance                                                         | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.10. Performance Standards                                                                     | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.11. Control and Monitoring Equipment                                                          | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.12. Reliability Coordinator Peak Preparation Survey                                           | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.13. Regional Reliability Coordinator Communications                                           | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.14. Operator Personnel and Training                                                           | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.15. MAPP Generation Reserve Sharing Pool Procedure for Determining Largest Single Contingency | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.2. Contingency Reserve Obligations                                                            | GRSP | BAL-002-0 | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.3. Contingency Reserves from Non-GRSP Sources                                                 | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.4. Contingency Review                                                                         | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.5. Contingency Reserve Transactions (Service Schedule D)                                      | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.6. The GRSP Emergency Energy (Schedule C) Replacement Process                                 | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.7. MS Type Purchases and Sales from GRSP Reserves                                             | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.8. Disturbance Control Performance Adjustment                                                 | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.1.9. Contingency Reserve Monitor (TOR)                                                          | GRSP |           | MAPP GRSP Handbook                                          | October 12, 2004 |
| 4.2 General Operating Guides Study Procedure                                                      |      |           | MAPP Members Reliability Criteria and Study Procedures      |                  |
| 4.2.1 North Dakota Study Procedure                                                                |      |           | MAPP Members Reliability Criteria and Study Procedures      |                  |

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|                                                                                                                                            |            |           |                                                                                                                                                                                                                   |                  |
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| 4.2.1. Load and Capability                                                                                                                 | GRSP       |           | MAPP GRSP Handbook                                                                                                                                                                                                | October 12, 2004 |
| 4.2.2 Twin Cities Study Procedure                                                                                                          |            |           | MAPP Members Reliability Criteria and Study Procedures                                                                                                                                                            |                  |
| 4.2.2. Accreditation of Generation                                                                                                         | GRSP       |           | MAPP GRSP Handbook                                                                                                                                                                                                | October 12, 2004 |
| 4.2.3 Interconnected Studies Group Study Procedure                                                                                         |            |           | MAPP Members Reliability Criteria and Study Procedures                                                                                                                                                            |                  |
| 4.2.3. Accreditation of Capacity Transactions                                                                                              | GRSP       |           | MAPP GRSP Handbook                                                                                                                                                                                                | October 12, 2004 |
| 4.2.4. Certification of Interruptible Demand                                                                                               | GRSP       |           | MAPP GRSP Handbook                                                                                                                                                                                                | October 12, 2004 |
| 5.0 Current System Condition Study Procedures                                                                                              |            |           | MAPP Members Reliability Criteria and Study Procedures                                                                                                                                                            |                  |
| 5.2 BTF Energy Schedule Reporting                                                                                                          | RAC        |           | MAPP Policies & Procedures for Transmission Operations Book                                                                                                                                                       | April 11, 2005   |
| 5.3 ATF Energy Schedule Reporting                                                                                                          | RAC        |           | MAPP Policies & Procedures for Transmission Operations Book                                                                                                                                                       | April 11, 2005   |
| 6.0 Loss Repayment                                                                                                                         | RAC        |           | MAPP Policies & Procedures for Transmission Operations Book                                                                                                                                                       | April 11, 2005   |
| Aggregated Actual and Forecast Demands and Net Energy for Load                                                                             | RAC        | MOD-017-0 | Include Requirements from MOD-017-0_R1                                                                                                                                                                            | April 1, 2005    |
| Analysis and Reporting of Transmission Protection System Misoperations                                                                     | RAC        | PRC-004-0 | Include Requirements from PRC-003-0_R1 & PRC-004-0_R2                                                                                                                                                             | April 1, 2005    |
| Assessment Data from Regional Reliability Organizations                                                                                    | RAC        | TPL-006-0 | Include Requirements from TPL-006-0_R1                                                                                                                                                                            | April 1, 2005    |
| Assessment of the Design and Effectiveness of UVLS Program                                                                                 | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2                                                                                                                                                             | April 1, 2005    |
| Assuring Consistency with Regional UFLS Program Requirements                                                                               | RAC        | PRC-007-0 |                                                                                                                                                                                                                   | April 1, 2005    |
| Automatic Generation Control                                                                                                               | GRSP       | BAL-005-0 |                                                                                                                                                                                                                   | April 1, 2005    |
| Capacity and Energy Emergencies                                                                                                            | RAC        | EOP-002-0 |                                                                                                                                                                                                                   | April 1, 2005    |
| Capacity Benefit Margin (CBM)                                                                                                              | RAC        | MOD-006-0 | Include Requirements from MOD-006_R1                                                                                                                                                                              | April 1, 2005    |
| CBM Methodology Documentation                                                                                                              | RAC        | MOD-004-0 | Include Requirements from MOD-004-0_R1                                                                                                                                                                            | April 1, 2005    |
| Coordination of Plans For New Generation, Transmission, and End-User                                                                       | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                                                                                                                                                             | April 1, 2005    |
| Define and Document Disturbance Monitoring Equipment Requirements.                                                                         | RAC        | PRC-002-0 | Include Requirements from PRC-002-0_R1 & PRC-002-0_R2                                                                                                                                                             | April 1, 2005    |
| Development and Documentation of Regional Reliability Organizations' Underfrequency Load Shedding Programs                                 | RAC        | PRC-006-0 | Include Requirements from PRC-006-0_R2 & PRC-006-0_R3                                                                                                                                                             | April 1, 2005    |
| Development of Dynamics System Models                                                                                                      | RAC        | MOD-015-0 | Include Requirements from MOD-015-0_R1, MOD-015-0_R2 and MOD-015-0_R3.                                                                                                                                            | April 1, 2005    |
| Development of Steady-State System Models                                                                                                  | RAC        | MOD-014-0 | Include Requirements from MOD-014-0_R1 & MOD-014-0_R2                                                                                                                                                             | April 1, 2005    |
| Disturbance Control Performance                                                                                                            | GRSP       | BAL-002-0 |                                                                                                                                                                                                                   | April 1, 2005    |
| Documentation of Data Reporting Requirements for Actual and Forecast Demands, Net Energy for Load, and Controllable Demand-Side Management | RAC        | MOD-016-0 | Include Requirements from MOD-016-0_R1 (TPL-005-0, TPL-006-0, MOD-010-0, MOD-011-0, MOD-012-0, MOD-013-0, MOD-014-0, MOD-015-0, MOD-016, MOD-017-0, MOD-018-0, MOD-019-0, MOD-020-0, MOD-021-0) and MOD-016-0_R2. | April 1, 2005    |
| Documentation of Total Transfer Capability and Available Transfer Capability Calculation Methodologies                                     | RAC        | MOD-001-0 | Include Requirements from MOD-001-0_R1                                                                                                                                                                            | April 1, 2005    |
| Documentation of Use of CBM                                                                                                                | RAC        | MOD-007-0 | Include Requirements from MOD-007_R2                                                                                                                                                                              | April 1, 2005    |
| Facility Connection Requirements                                                                                                           | RAC        | FAC-001-0 | Include Requirements from FAC-001-0_R1, FAC-001-0_R2, & FAC-001-0_R3                                                                                                                                              |                  |

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|                                                                                                                              |            |           |                                                                                                                                                                        |               |
|------------------------------------------------------------------------------------------------------------------------------|------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Inadvertent Interchange                                                                                                      | Compliance | BAL-006-0 |                                                                                                                                                                        | April 1, 2005 |
| Interconnection-wide Procedure                                                                                               | Compliance | IRO-006-0 | Eastern Interconnection: Use attachment 1-IRO-006-0<br>Western Interconnection: Use website specified in IRO-006-0_R2.2 ERCOT use: website specified in IRO-006-0_R2.3 | April 1, 2005 |
| Methodologies for Determining Electrical Facility Ratings                                                                    | RAC        | FAC-004-0 | Include Requirements from FAC-004-0_R1 & FAC-004-0_R2                                                                                                                  | April 1, 2005 |
| Planned Outage Coordination                                                                                                  | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                                                                                                                                 | April 1, 2005 |
| Receiving Input for ATC and TTC Methodologies                                                                                | RAC        | MOD-003-0 | Include Requirements from MOD-003-0_R1                                                                                                                                 | April 1, 2005 |
| Regional and Interregional Self-Assessment Reliability Reports                                                               | RAC        | TPL-005-0 |                                                                                                                                                                        | April 1, 2005 |
| Regional Blackstart Capability Plan                                                                                          | RAC        | EOP-007-0 | Include Requirements from EOP-007-0_R1                                                                                                                                 | April 1, 2005 |
| Regional CBM Calculations                                                                                                    | Compliance | MOD-005-0 | Include Requirements from MOD-005-0_R1                                                                                                                                 | April 1, 2005 |
| Regional Procedure for Transmission Protection System Misoperations.                                                         | RAC        | PRC-003-0 | Include Requirements from PRC-003-0_R1 & PRC-003-0_R2                                                                                                                  | April 1, 2005 |
| Regional Reporting Procedure                                                                                                 | RAC        | EOP-004-0 | Use attachment 1-EOP-005-0 of NERC Standards                                                                                                                           | April 1, 2005 |
| Regional Steady-State Data Requirements and Reporting Procedures                                                             | RAC        | MOD-011-0 | Include Requirements from MOD-011-0_R1                                                                                                                                 | April 1, 2005 |
| Regional TRM Methodology                                                                                                     | RAC        | MOD-008-0 | Include Requirements from MOD-008-0_R1                                                                                                                                 | April 1, 2005 |
| Reliability Coordination – Responsibilities and Authorities                                                                  | Compliance | IRO-001-0 |                                                                                                                                                                        | April 1, 2005 |
| Reporting SOL and IROL Violations                                                                                            | Compliance | TOP-007-0 |                                                                                                                                                                        | April 1, 2005 |
| Restoration Plan                                                                                                             | RAC        | EOP-005-0 | Use attachment 1-EOP-005-0 of NERC Standards                                                                                                                           | April 1, 2005 |
| Review of Transmission Service Provider Total Transfer Capability and Available Transfer Capability Calculations and Results | Compliance | MOD-002-0 | Include Requirements from MOD-002-0_R1                                                                                                                                 | April 1, 2005 |
| RRO Dynamics Data Requirements and Reporting Procedures                                                                      | RAC        | MOD-013-0 | Include Requirements from MOD-013-0_R1 & MOD-013-0_R2                                                                                                                  | April 1, 2005 |
| Special Protection System Assessment                                                                                         | RAC        | PRC-014-0 | Include Requirements from PRC-014-0_R2 & PRC-014-0_R3                                                                                                                  | April 1, 2005 |
| Special Protection System Database.                                                                                          | RAC        | PRC-013-0 | Include Requirements from PRC-013-0_R1 & PRC-013-0_R2                                                                                                                  | April 1, 2005 |
| Special Protection System Review Procedure                                                                                   | RAC        | PRC-012-0 | Include Requirements from PRC-012-0_R1 & PRC-012-0_R2                                                                                                                  | April 1, 2005 |
| Transmission Loading Relief Procedure                                                                                        | Compliance | IRO-006-0 |                                                                                                                                                                        | April 1, 2005 |
| Transmission Protection System Maintenance and Testing                                                                       | RAC        | PRC-005-0 | Include Requirements from PRC-005-0_R1 & PRC-003-0_R2                                                                                                                  | April 1, 2005 |
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load    | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2                                                                                                                  | April 1, 2005 |
| UFLS Performance Following an Underfrequency Event                                                                           | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2                                                                                                                  | April 1, 2005 |
| Underfrequency Load Shedding Equipment Maintenance Programs                                                                  | Compliance | PRC-008-0 | Include Requirements from PRC-007-0_R1 & PRC-008-0_R2                                                                                                                  | April 1, 2005 |
| UVLS System Maintenance and Testing                                                                                          | RAC        | PRC-011-0 | Include Requirements from PRC-011-0_R1 & PRC-011-0_R2                                                                                                                  | April 1, 2005 |
| Vegetation Management Plan                                                                                                   | RAC        | FAC-003-0 |                                                                                                                                                                        | April 1, 2005 |
| Verify TRM Values                                                                                                            | RAC        | MOD-009-0 | Include Requirements from MOD-009-0_R1                                                                                                                                 | April 1, 2005 |
| Voltage and Reactive Control                                                                                                 | RAC        | VAR-001-0 |                                                                                                                                                                        | April 1, 2005 |

|                                                                                                                                            |            |           |                                                                                                                                                                                                                   |               |    |
|--------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----|
| <b>Regional Reliability Organization</b>                                                                                                   |            |           |                                                                                                                                                                                                                   |               |    |
| Regional Reporting Procedure                                                                                                               | RAC        | EOP-004-0 | Use attachment 1-EOP-005-0 of NERC Standards                                                                                                                                                                      | April 1, 2005 | No |
| Regional Blackstart Capability Plan                                                                                                        | RAC        | EOP-007-0 | Include Requirements from EOP-007-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Receiving Input for ATC and TTC Methodologies                                                                                              | RAC        | MOD-003-0 | Include Requirements from MOD-003-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| CBM Methodology Documentation                                                                                                              | RAC        | MOD-004-0 | Include Requirements from MOD-004-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Regional CBM Calculations                                                                                                                  | Compliance | MOD-005-0 | Include Requirements from MOD-005-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Regional TRM Methodology                                                                                                                   | RAC        | MOD-008-0 | Include Requirements from MOD-008-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Verify TRM Values                                                                                                                          | RAC        | MOD-009-0 | Include Requirements from MOD-009-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Regional Steady-State Data Requirements and Reporting Procedure:                                                                           | RAC        | MOD-011-0 | Include Requirements from MOD-011-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| RRO Dynamics Data Requirements and Reporting Procedure:                                                                                    | RAC        | MOD-013-0 | Include Requirements from MOD-013-0_R1 & MOD-013-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Development of Steady-State System Models                                                                                                  | RAC        | MOD-014-0 | Include Requirements from MOD-014-0_R1 & MOD-014-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Development of Dynamics System Models                                                                                                      | RAC        | MOD-015-0 | Include Requirements from MOD-015-0_R1, MOD-015-0_R2 and MOD-015-0_R3.                                                                                                                                            | April 1, 2005 | No |
| Documentation of Data Reporting Requirements for Actual and Forecast Demands, Net Energy for Load, and Controllable Demand-Side Management | RAC        | MOD-016-0 | Include Requirements from MOD-016-0_R1 (TPL-005-0, TPL-006-0, MOD-010-0, MOD-011-0, MOD-012-0, MOD-013-0, MOD-014-0, MOD-015-0, MOD-016, MOD-017-0, MOD-018-0, MOD-019-0, MOD-020-0, MOD-021-0) and MOD-016-0_R2. | April 1, 2005 | No |
| Define and Document Disturbance Monitoring Equipment Requirements                                                                          | RAC        | PRC-002-0 | Include Requirements from PRC-002-0_R1 & PRC-002-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Regional Procedure for Transmission Protection System Misoperations                                                                        | RAC        | PRC-003-0 | Include Requirements from PRC-003-0_R1 & PRC-003-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Development and Documentation of Regional Reliability Organizations' Underfrequency Load Shedding Programs                                 | RAC        | PRC-006-0 | Include Requirements from PRC-006-0_R2 & PRC-006-0_R3                                                                                                                                                             | April 1, 2005 | No |
| Special Protection System Review Procedure                                                                                                 | RAC        | PRC-012-0 | Include Requirements from PRC-012-0_R1 & PRC-012-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Special Protection System Database.                                                                                                        | RAC        | PRC-013-0 | Include Requirements from PRC-013-0_R1 & PRC-013-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Special Protection System Assessment                                                                                                       | RAC        | PRC-014-0 | Include Requirements from PRC-014-0_R2 & PRC-014-0_R3                                                                                                                                                             | April 1, 2005 | No |
| Regional and Interregional Self-Assessment Reliability Reports                                                                             | RAC        | TPL-005-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| Assessment Data from Regional Reliability Organizations                                                                                    | RAC        | TPL-006-0 | Include Requirements from TPL-006-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Disturbance Control Performance                                                                                                            | GRSP       | BAL-002-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| Reliability Coordination – Responsibilities and Authorities                                                                                | Compliance | IRO-001-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| Documentation of Total Transfer Capability and Available Transfer Capability Calculation Methodologies                                     | RAC        | MOD-001-0 | Include Requirements from MOD-001-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Review of Transmission Service Provider Total Transfer Capability and Available Transfer Capability Calculations and Results               | Compliance | MOD-002-0 | Include Requirements from MOD-002-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| <b>Transmission Operator</b>                                                                                                               |            |           |                                                                                                                                                                                                                   |               |    |
| Restoration Plan                                                                                                                           | RAC        | EOP-005-0 | Use attachment 1-EOP-005-0 of NERC Standards                                                                                                                                                                      | April 1, 2005 | No |
| Vegetation Management Plan                                                                                                                 | RAC        | FAC-003-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| Assuring Consistency with Regional UFLS Program Requirements:                                                                              | RAC        | PRC-007-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| UFLS Performance Following an Underfrequency Event                                                                                         | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Assessment of the Design and Effectiveness of UVLS Program                                                                                 | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Planned Outage Coordination                                                                                                                | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Reporting SOL and IROL Violations                                                                                                          | Compliance | TOP-007-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| Voltage and Reactive Control                                                                                                               | RAC        | VAR-001-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| Automatic Generation Control                                                                                                               | GRSP       | BAL-005-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| <b>Reliability Coordinator</b>                                                                                                             |            |           |                                                                                                                                                                                                                   |               |    |
| Transmission Loading Relief Procedure                                                                                                      | Compliance | IRO-006-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| Interconnection-wide Procedure                                                                                                             | Compliance | IRO-006-0 | Eastern Interconnection: Use attachment 1-IRO-006-0 Western Interconnection: Use website specified in IRO-006-0_R2.2 ERCOT use: website specified in IRO-006-0_R2.3                                               | April 1, 2005 | No |
| Planned Outage Coordination                                                                                                                | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Reporting SOL and IROL Violations                                                                                                          | Compliance | TOP-007-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| Capacity and Energy Emergencies                                                                                                            | RAC        | EOP-002-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| Reliability Coordination – Responsibilities and Authorities                                                                                | Compliance | IRO-001-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| <b>Transmission Service Provider</b>                                                                                                       |            |           |                                                                                                                                                                                                                   |               |    |
| Capacity Benefit Margin (CBM)                                                                                                              | RAC        | MOD-006-0 | Include Requirements from MOD-006_R1                                                                                                                                                                              | April 1, 2005 | No |
| Documentation of Use of CBM                                                                                                                | RAC        | MOD-007-0 | Include Requirements from MOD-007_R2                                                                                                                                                                              | April 1, 2005 | No |
| <b>Load-Serving Entity</b>                                                                                                                 |            |           |                                                                                                                                                                                                                   |               |    |
| Aggregated Actual and Forecast Demands and Net Energy for Load                                                                             | RAC        | MOD-017-0 | Include Requirements from MOD-017-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load                  | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Assuring Consistency with Regional UFLS Program Requirement:                                                                               | RAC        | PRC-007-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| UFLS Performance Following an Underfrequency Event                                                                                         | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Assessment of the Design and Effectiveness of UVLS Program                                                                                 | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Automatic Generation Control                                                                                                               | GRSP       | BAL-005-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-Use                                                                        | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                                                                                                                                                             | April 1, 2005 | No |
| <b>Planning Authority</b>                                                                                                                  |            |           |                                                                                                                                                                                                                   |               |    |
| Aggregated Actual and Forecast Demands and Net Energy for Load                                                                             | RAC        | MOD-017-0 | Include Requirements from MOD-017-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load                  | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Documentation of Data Reporting Requirements for Actual and Forecast Demands, Net Energy for Load, and Controllable Demand-Side Management | RAC        | MOD-016-0 | Include Requirements from MOD-016-0_R1 (TPL-005-0, TPL-006-0, MOD-010-0, MOD-011-0, MOD-012-0, MOD-013-0, MOD-014-0, MOD-015-0, MOD-016, MOD-017-0, MOD-018-0, MOD-019-0, MOD-020-0, MOD-021-0) and MOD-016-0_R2. | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-Use                                                                        | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                                                                                                                                                             | April 1, 2005 | No |
| <b>Transmission Planner</b>                                                                                                                |            |           |                                                                                                                                                                                                                   |               |    |
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load                  | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-Use                                                                        | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                                                                                                                                                             | April 1, 2005 | No |
| <b>Resource Planner</b>                                                                                                                    |            |           |                                                                                                                                                                                                                   |               |    |

|                                                                                                                           |            |           |                                                                      |               |    |
|---------------------------------------------------------------------------------------------------------------------------|------------|-----------|----------------------------------------------------------------------|---------------|----|
| Aggregated Actual and Forecast Demands and Net Energy for Load                                                            | RAC        | MOD-017-0 | Include Requirements from MOD-017-0_R1                               | April 1, 2005 | No |
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2                | April 1, 2005 | No |
| <b>Transmission Owner</b>                                                                                                 |            |           |                                                                      |               |    |
| Analysis and Reporting of Transmission Protection System Misoperation:                                                    | RAC        | PRC-004-0 | Include Requirements from PRC-003-0_R1 & PRC-004-0_R2                | April 1, 2005 | No |
| Transmission Protection System Maintenance and Testing                                                                    | RAC        | PRC-005-0 | Include Requirements from PRC-005-0_R1 & PRC-003-0_R2                | April 1, 2005 | No |
| Assuring Consistency with Regional UFLS Program Requirement:                                                              | RAC        | PRC-007-0 |                                                                      | April 1, 2005 | No |
| Underfrequency Load Shedding Equipment Maintenance Program:                                                               | Compliance | PRC-008-0 |                                                                      | April 1, 2005 | No |
| UFLS Performance Following an Underfrequency Event                                                                        | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2                | April 1, 2005 | No |
| Assessment of the Design and Effectiveness of UVLS Program                                                                | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2                | April 1, 2005 | No |
| UVLS System Maintenance and Testing                                                                                       | RAC        | PRC-011-0 | Include Requirements from PRC-011-0_R1 & PRC-011-0_R2                | April 1, 2005 | No |
| Facility Connection Requirements                                                                                          | RAC        | FAC-001-0 | Include Requirements from FAC-001-0_R1, FAC-001-0_R2, & FAC-001-0_R3 |               |    |
| Coordination of Plans For New Generation, Transmission, and End-Use                                                       | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                | April 1, 2005 | No |
| Methodologies for Determining Electrical Facility Rating:                                                                 | RAC        | FAC-004-0 | Include Requirements from FAC-004-0_R1 & FAC-004-0_R2                | April 1, 2005 | No |
| <b>Generator Owner</b>                                                                                                    |            |           |                                                                      |               |    |
| Analysis and Reporting of Transmission Protection System Misoperation:                                                    | RAC        | PRC-004-0 | Include Requirements from PRC-003-0_R1 & PRC-004-0_R2                | April 1, 2005 | No |
| Transmission Protection System Maintenance and Testing                                                                    | RAC        | PRC-005-0 | Include Requirements from PRC-005-0_R1 & PRC-003-0_R2                | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-Use                                                       | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                | April 1, 2005 | No |
| Methodologies for Determining Electrical Facility Rating:                                                                 | RAC        | FAC-004-0 | Include Requirements from FAC-004-0_R1 & FAC-004-0_R2                | April 1, 2005 | No |
| <b>Distribution Provider</b>                                                                                              |            |           |                                                                      |               |    |
| Analysis and Reporting of Transmission Protection System Misoperation:                                                    | RAC        | PRC-004-0 | Include Requirements from PRC-003-0_R1 & PRC-004-0_R2                | April 1, 2005 | No |
| Transmission Protection System Maintenance and Testing                                                                    | RAC        | PRC-005-0 | Include Requirements from PRC-005-0_R1 & PRC-003-0_R2                | April 1, 2005 | No |
| Assuring Consistency with Regional UFLS Program Requirement:                                                              | RAC        | PRC-007-0 |                                                                      | April 1, 2005 | No |
| Underfrequency Load Shedding Equipment Maintenance Program:                                                               | Compliance | PRC-008-0 | Include Requirements from PRC-007-0_R1 & PRC-008-0_R2                | April 1, 2005 | No |
| UFLS Performance Following an Underfrequency Event                                                                        | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2                | April 1, 2005 | No |
| Assessment of the Design and Effectiveness of UVLS Program                                                                | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2                | April 1, 2005 | No |
| UVLS System Maintenance and Testing                                                                                       | RAC        | PRC-011-0 | Include Requirements from PRC-011-0_R1 & PRC-011-0_R2                | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-Use                                                       | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                | April 1, 2005 | No |
| <b>Generator Operator</b>                                                                                                 |            |           |                                                                      |               |    |
| Planned Outage Coordination                                                                                               | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                               | April 1, 2005 | No |
| Voltage and Reactive Control                                                                                              | RAC        | VAR-001-0 |                                                                      | April 1, 2005 | No |
| Automatic Generation Control                                                                                              | GRSP       | BAL-005-0 |                                                                      | April 1, 2005 | No |
| <b>Balancing Authority</b>                                                                                                |            |           |                                                                      |               |    |
| Planned Outage Coordination                                                                                               | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                               | April 1, 2005 | No |
| Disturbance Control Performance                                                                                           | GRSP       | BAL-002-0 |                                                                      | April 1, 2005 | No |
| Automatic Generation Control                                                                                              | GRSP       | BAL-005-0 |                                                                      | April 1, 2005 | No |
| Inadvertent Interchange                                                                                                   | Compliance | BAL-006-0 |                                                                      | April 1, 2005 | No |
| Capacity and Energy Emergencies                                                                                           | RAC        | EOP-002-0 |                                                                      | April 1, 2005 | No |
| <b>Purchasing-Selling Entities</b>                                                                                        |            |           |                                                                      |               |    |
| Voltage and Reactive Control                                                                                              | RAC        | VAR-001-0 |                                                                      | April 1, 2005 | No |
| <b>Reserve Sharing Groups</b>                                                                                             |            |           |                                                                      |               |    |
| Disturbance Control Performance                                                                                           | GRSP       | BAL-002-0 |                                                                      | April 1, 2005 | No |

**Agenda 7.**  
**Reliability First Corporation (RFC) Update**

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## Day Two Standards Team – June 17, 2005

### Attendees:

Ron Bauer, DTE  
Roberta Brown, Project Manager  
Larry Brusseau, MRO  
Ben Deutsch, MRO  
Doug Hils, Cinergy (by phone)  
Mark Kuras, PJM  
Charlie Matassa, BGE  
Eric Mortenson, Exelon  
Kirit Shah, Ameren, Chairman

### **Decisions**

- May 31 notes approved for posting.
- SCT has reached conceptual agreement on a standards process, which is being written up for discussion and approval at its June 30 meeting.
- RFC members will commit to meet NERC standards, as well as RFC standards. Both may address the same topic, with RFC standards and implementation plans.
- See Guidelines for Day Two Standards work below.
- Worksheets attached:
  - Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards.
  - Comparison Worksheet Standards Only
- Topics to be addressed first - due 6/30:
  - Generation Reserves – Kirit & Doug
  - Capacity Benefit Margin - Eric
  - Intra-regional load deliverability –Charlie
  - Under frequency load shedding - Ben
  - Transmission facility ratings – Ron & Larry
  - Special protection schemes – MarkNext - due 7/11:
  - Operating reserves – Ron
  - Black Start capability – Larry
  - Disturbance Monitoring equipment requirements – Ben
  - Steady state and dynamics modeling – Mark
  - Generator Capability Rating Testing – Eric & Charlie
  - Planning principles and guides - Kirit

### **Action Items**

**Kirit** - Integrate RRO Comparison worksheet and RRO NERC requirements worksheet

**All** – Review existing regional documentation on individual priority topics – set one by 6/30 and set 2 by 7/11

**Roberta** – Set up 7/13 and 7/27 meetings at Chicago Admirals Club

### **Key Milestones and Schedule**

6/15 Receive process from SCT for adopting existing ECAR MAAC and MAIN requirements initial LRRC standards  
7/5 Conference call 9:30 – 11:30 central – Assign remainder of master list  
7/13 Day 2 Standards team to meet – Chicago  
7/27 Day 2 Standards team to meet – Chicago  
8/10 Day 2 Standards team to meet - TBD  
9/1 Day 2 Standards team to meet - TBD

|      |                                                                                                                                                                                      |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8/15 | Adopt a list of LRRC standards needed to create a uniform set of reliability standards needed to meet NERC requirement and replace the existing requirements of MAAC, ECAR, and MAIN |
| 8/15 | Scope of a single set of LRRC standards                                                                                                                                              |
| 9/1  | Create a Transition plan to a single set of LRRC standards                                                                                                                           |
| TBD  | Define the process the D2ST will use, including format                                                                                                                               |
| TBD  | Initiate standards writing process                                                                                                                                                   |
| TBD  | Implement the transition plan                                                                                                                                                        |

## **Guidelines for Day Two Standards Work**

- Task is to develop a common understanding and uniform implementation process throughout RFC.
- Bylaws dictate that “organizational standards” reflect those items with which members will comply and on which they will be audited. “Guides” are informational. The term “Criteria” isn’t used in NERC standards. “Requirements” are specific measurable elements in standards used to measure compliance. (Guidance from SCT)
- SCT is developing a process for standards development, including a SAR (public notice of request for the standard) posting.
- Steps to accomplish this:
  - Identify needed topics (i.e. under frequency load shedding, etc.)
  - Categorize by orientation or type (i.e. criteria, methodology, reporting requirements, etc.)
  - Assign to team members according to topic/expertise
  - Prioritize by degree of difficulty
  - Map existing practices and documents to NERC standards to identify implementation similarities and differences between regions (see attachment)
  - A SAR process would then be triggered for these items.
  - By November 1, the D2ST plans to identify critical topics and approach that are important to members’ decision making.
  - Create uniform standards and requirements for RFC for NERC standards.
  - Work teams of groups of D2ST members will review a subset of the NERC standards.
  - Each work team will identify similarities and differences between existing regional standards and create a plan to address the differences and create a uniform process to meet the NERC requirements.
- Create uniform standards and requirements for RFC not covered in NERC standards

| <b>Comparison Work Sheet Standards Only</b>      |               |                      |                      |                    |
|--------------------------------------------------|---------------|----------------------|----------------------|--------------------|
| <b>Standards, Procedures, Guides, etc</b>        | <b>MAIN</b>   | <b>ECAR</b>          | <b>MAAC</b>          | <b>MRO</b>         |
| <b>Operating Procedures</b>                      |               |                      |                      | OP-1               |
| (a) Operating Reserve Deficiencies               | Guide 1A      |                      |                      |                    |
| (b) Generating Capacity Deficiencies             | Guide 1B      |                      |                      |                    |
| (c) Implementation of NERC TLR                   | Guide 1c      |                      |                      |                    |
| <b>Planning Principles and Guides</b>            | Guide 2       | Document 1           | A-1, B-5             | OP-2, I-A, I-B,I-E |
| <b>Rating of Generating Equipment</b>            | Guides 3A,B,C | Document 4           | B-3, B-10            |                    |
| <b>Demand and Energy Forecast</b>                | Guide 4       | Document 8           | B-2                  | II-D               |
| <b>Operating Reserves</b>                        | Guide 5A      | Document 2           |                      |                    |
| <b>Reserve Sharing Group Procedures</b>          | Guide 5B      |                      |                      |                    |
| <b>Generation Reserve Requirements</b>           | Guide 6       | Document 15          |                      |                    |
| <b>Control Area Certification</b>                | Guide 9       |                      |                      |                    |
| <b>Protection Principles</b>                     | Guide 10      | Documents 10, 11, 12 | A-1,A-2, A-3,C-3,C-4 | OP-4,III-A,B,C,F   |
| <b>Disturbance Monitoring</b>                    | Guide 12      | Document 14          | B-6                  | OP-4, I-F          |
| <b>Emergency Operations</b>                      |               | Document 3           |                      |                    |
| <b>TTC and ATC Calculations</b>                  |               | Document 5           | B-9                  | OP-6               |
| <b>Facility Connection Requirements</b>          |               | Document 6           | B-4, B-7             | I-C                |
| <b>Transmission Facility Ratings</b>             |               | Document 7           |                      |                    |
| <b>Dynamic Demand Characteristics</b>            |               | Document 9           |                      | II-E               |
| <b>System Restoration</b>                        |               | Document 13          | A-4, B-11            | OP-6, IV-A,B       |
| <b>Reliability Coordinator Requirements</b>      |               | Document 16          |                      | OP-9               |
| <b>Review and Approval of Guides</b>             |               |                      | A-5                  |                    |
| <b>Underfrequency Load Shedding</b>              | Guide 1B      |                      | B-8                  | OP-6, III-D        |
| <b>Reliability Assesment Procedures</b>          |               |                      | C-1                  |                    |
| <b>Complnce Facility List &amp; Change Proc.</b> |               |                      | C-7                  |                    |
| <b>Interchange</b>                               |               |                      |                      | OP-3               |
| <b>Emergency Procedures</b>                      |               |                      |                      | OP-5               |
| <b>Telecommunications</b>                        |               |                      |                      | OP-7               |
| <b>Training</b>                                  |               |                      |                      | OP-8               |
| <b>System Modeling Data</b>                      |               |                      |                      | II-A,B,C,D,E       |
| <b>Definitions - as stand alone reference</b>    |               |                      |                      | Appendix A         |
| <b>Cyber Security</b>                            |               |                      |                      |                    |
| <b>Special Protection Schemes Principles</b>     |               |                      |                      |                    |
| <b>Intra-regional Load Deliverability</b>        |               |                      |                      |                    |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard              | Short Description                                                       | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                            | ECAR                                                                                                                                      | MAAC                                  | MAIN                                                            | MRO                                                                                                  | Notes                                                                       |
|----------------------------|-------------------------------------------------------------------------|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| BAL-002-0 R2               | Disturbance Control Performance                                         | S                     | <b>High/Difficult</b> | Each Regional Reliability Organization, sub-Regional Reliability Organization or Reserve Sharing Group shall specify its Contingency Reserve policies.<br><b>MRO has no regulation requirement</b>           | ECAR Document #2 Contingency Spinning and Supplemental Reserve requirements are 1.5% each based upon projected BA peak load for next day. | PJM Manual M13 – Emergency Operations | MAIN Guide 1A<br>MAIN Guide 5A<br>MAIN Guide 5B<br>MAIN Guide 7 | MRO requirement for Spinning Reserves is for a minimum of 40% Contingency Reserves Policy1 Section B | Standard may assign the responsibility for DCS to another group.            |
| EOP-004-0 R1, R3.4, R4, R5 | Disturbance Reporting                                                   | P                     | <b>Low/Easy</b>       | Each RRO shall establish and maintain a regional reporting procedure to facilitate preparation of preliminary and final disturbance reports.                                                                 | ECAR ARS System provides entry of information supporting RSG compliance reporting                                                         | PJM Manual M13 – Emergency Operations | MAIN Guide 3A<br>MAIN Guide 7                                   | MAPP Reliability Handbook, Appendix 5F – MAPP Disturbance Reporting.                                 |                                                                             |
| EOP-007-0 R1, R2           | Establish, Maintain, and Document a Regional Blackstart Capability Plan | S                     | <b>High/Difficult</b> | The Regional Reliability Organization shall establish, maintain, and document of its system BCPs<br><br><b>Will include requirements for verification and analysis and assign accountability to parties.</b> | ECAR Document #13                                                                                                                         | A-4 Blackstart Generator Criteria     | MAIN Guide 7                                                    | The power system restoration plan does not address all of the details of the standard.               | ECAR has a procedure that verifies that each member has a restoration plan. |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard         | Short Description                                           | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                                                                                                                                                                                                                                          | ECAR                                 | MAAC                                                                      | MAIN                                   | MRO                                           | Notes |
|-----------------------|-------------------------------------------------------------|-----------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------|----------------------------------------|-----------------------------------------------|-------|
| IRO-001-0             | Reliability Coordination — Responsibilities and Authorities | S                     | <b>High/Difficult</b> | The Regional Reliability Organization shall review the Reliability Coordinator documentation and the agreements with entities listed in Requirement R8 that delineate the authority of the Reliability Coordinator to immediately direct actions of these entities in its Reliability Coordinator Area to mitigate SOL and IROL violations to return the system to a reliable state.<br><b>ECAR has standards at urging of NERC. Other regions do not.</b> | ECAR Document #16                    |                                                                           | None                                   | MAPP Reliability Handbook Policy 9, Section A |       |
| MOD-001-0 R1, R2, R5? | Documentation of TTC and ATC Calculation Methodologies      | S                     | <b>High/Difficult</b> | Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional TTC and ATC methodology. (Certain systems that are not required to post ATC values are exempt from this standard.)<br><b>(Is there an R5??)</b>                                                                                                                                                                                             | ECAR Document #5<br>ECAR Document #1 | Document B-9<br>MAAC Transfer Capability Guidelines reference PJM Manuals | None - MISO & PJM do this for MAIN TOs | MAPP Planning I.E.1.M1                        |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard           | Short Description                                           | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                                                                                                                                    | ECAR             | MAAC                                                      | MAIN                                   | MRO                                                                                                                                               | Notes |
|-------------------------|-------------------------------------------------------------|-----------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| MOD-002-0<br>R1, R2, R3 | Review of TTC and ATC Calculations and Results              | P                     | Low/Medium            | The Regional Reliability Organization shall develop and implement a procedure to review and provide the results of its most current reviews of TTC and ATC<br><b>Note – requires coordination with RTOs to review requirements on RTOs and RROs</b>                                                                                                  | ECAR Document #5 | MAAC Transfer Capability Guidelines reference PJM Manuals | None - MISO & PJM do this for MAIN TOs | MAPP's Reliability Handbook: MAPP Region Total and Available Transfer Capability Methodology (Appendix 6A – Subsection A). MAPP Planning I.E.1.M3 |       |
| MOD-003-0               | Procedure for Input on TTC and ATC Methodologies and Values | P                     | Procedure Low/Easy    | Each Regional Reliability Organization, in conjunction with its members, shall develop, document and post on a web site a procedure on how transmission users can input their concerns or questions regarding the TTC and ATC methodology and values of the Transmission Service Provider(s), and how these concerns or questions will be addressed. |                  | MAAC Transfer Capability Guidelines reference PJM Manuals | None - MISO & PJM do this for MAIN TOs | Staff reviews for compliance MAPP Planning I.E.1.M4                                                                                               |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard    | Short Description                           | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                               | ECAR    | MAAC                                                      | MAIN                                   | MRO                                                                                                                                 | Notes |
|------------------|---------------------------------------------|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------|
| MOD-004-0 R1, R2 | Documentation of Regional CBM Methodologies | S                     | High/Difficult        | Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional CBM methodology.                 | ATCP-60 | MAAC Transfer Capability Guidelines reference PJM Manuals | None - MISO & PJM do this for MAIN TOs | Staff reviews for compliance. There is a dispute resolution process. MAPP Planning I.E.2.M1                                         |       |
| MOD-005-0        | Procedure for Verifying CBM Values          | P                     | Low/Medium            | Each Regional Reliability Organization shall document its CBM procedure and shall make its CBM review procedure available                       | ATCP-60 | MAAC Transfer Capability Guidelines reference PJM Manuals | None - MISO & PJM do this for MAIN TOs | MAPP's Reliability Handbook: MAPP Regional Capacity Benefit Margin Methodology (Appendix 6A – Subsection C). MAPP Planning I.E.2.M3 |       |
| MOD-005-0        | Procedure for Verifying CBM Values          | P                     | Low/Easy              | The Regional Reliability Organization shall provide documentation of the results of the most current implementation of its CBM review procedure | ATCP-60 | MAAC Transfer Capability Guidelines reference PJM Manuals | None - MISO & PJM do this for MAIN TOs | MAPP Planning I.E.2.M3                                                                                                              |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard        | Short Description                                          | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                                 | ECAR    | MAAC                                                      | MAIN                                   | MRO                                                                                                                                         | Notes |
|----------------------|------------------------------------------------------------|-----------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------|
| MOD-008-0 R1, R2     | Documentation and Content of Each Regional TRM Methodology | S                     | High, Difficult       | Each Regional Reliability Organization, in conjunction with its members, shall develop and document a Regional TRM methodology.                                                                                                                   | ATCP-60 | MAAC Transfer Capability Guidelines reference PJM Manuals | None - MISO & PJM do this for MAIN TOs | Staff review for compliance MAPP Planning I.E.2.M6                                                                                          |       |
| MOD-009-0 R1, R2, R3 | Procedure for Verifying TRM Values                         | P                     | High/Difficult        | The Regional Reliability Organization shall make documentation of its Regional TRM review procedure. The Regional Reliability Organization shall make documentation of the results of the most current implementation of its TRM review procedure | ATCP-60 | MAAC Transfer Capability Guidelines reference PJM Manuals | None - MISO & PJM do this for MAIN TOs | MAPP's Reliability Handbook: MAPP Regional Transmission Reliability Margin Methodology (Appendix 6A – Subsection B). MAPP Planning I.E.2.M8 |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard       | Short Description                                                | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                                                                                                                                                                                | ECAR                   | MAAC                                                                          | MAIN                      | MRO                                                 | Notes |
|---------------------|------------------------------------------------------------------|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------|-------|
| MOD-011-0<br>R1, R2 | Regional Steady-State Data Requirements and Reporting Procedures | S                     | <i>/Easy</i>          | The Regional Reliability Organizations within an Interconnection shall document their Interconnection's steady-state data requirements and reporting procedures, shall review those data requirements and reporting procedures (at least every five years), and shall make the data requirements and reporting procedures available. Regions may use MMWG procedures to meet requirements.       | ECAR Document 1        | B-5 Regional Planning Process - Adequacy and Reliability Assessment Guideline | MAIN uses MMWG procedures | Staff reviews for compliance. MAPP Planning II.A.M1 |       |
| MOD-013-0<br>R1, R2 | RRO Dynamics Data Requirements and Reporting Procedures          | P                     | <i>/Easy</i>          | The Regional Reliability Organization shall participate in the documentation of its Interconnection's data requirements and reporting procedures and, shall participate in the review of those data requirements and reporting procedures (at least every five years), and shall provide those data requirements and reporting procedures. Regions may use MMWG procedures to meet requirements. | ECAR Document 1, 4 & 9 | B-5 Regional Planning Process - Adequacy and Reliability Assessment Guideline | MAIN uses MMWG procedures | Staff review for compliance MAPP Planning II.A.M4   |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard    | Short Description                                                  | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                                                                                                                                                     | ECAR                                 | MAAC                                                                          | MAIN         | MRO                                                                                                                                                                                                           | Notes |
|------------------|--------------------------------------------------------------------|-----------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| MOD-014-0 R1, R2 | Development of Interconnection-Specific Steady State System Models | P                     | <i>/Easy</i>          | The Regional Reliability Organization shall create, maintain, and provide the most recent solved (converged) Interconnection-specific steady state models to NERC                                                                                                                                                                                                     | ECAR Document #1                     | B-5 Regional Planning Process - Adequacy and Reliability Assessment Guideline | MAIN Guide 2 | The Reliability Assessment Committee (RAC) is currently assigned this responsibility. The RAC is also looking at the relationship of the NERC committees so as not to duplicate effort. MAPP Planning II.A.M5 |       |
| MOD-015-0 R1, R2 | Development of Interconnection-Specific Dynamics System Models     | P                     | <i>/Easy</i>          | The Regional Reliability Organization(s) within each Interconnection shall develop Interconnection dynamics system models for their Interconnection annually for selected study years as determined by the Regional Reliability Organization(s) within each Interconnection and shall provide the most recent initialized (approximately 25 seconds, no-fault) models | ECAR Document #1<br>ECAR Document #9 | B-5 Regional Planning Process - Adequacy and Reliability Assessment Guideline | MAIN Guide 2 | The Reliability Assessment Committee (RAC) is currently assigned this responsibility. MAPP Planning II.A.M6                                                                                                   |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard       | Short Description                                                   | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                                                                                      | ECAR              | MAAC                                                                                                             | MAIN                                           | MRO                                                                                                                                | Notes |
|---------------------|---------------------------------------------------------------------|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------|
| MOD-016-0<br>R1, R2 | Actual and Forecast Demands, Net Energy for Load, Controllable DSM  | P                     | <b>High/Difficult</b> | The Planning Authority and Regional Reliability Organization shall have documentation identifying the scope and details of the actual and forecast (a) Demand data, (b) Net Energy for Load data, and (c) controllable DSM data to be reported for system modeling and reliability analyses. (EIA-411) | ECAR Document #8  | B-2 Load Management Guidelines and B-5 Regional Planning Process - Adequacy and Reliability Assessment Guideline | MAIN Guide 2<br>MAIN Guide 4                   | The Reliability Assessment Committee (RAC) is currently assigned this responsibility. MAPP Planning II.D.M1                        |       |
| PRC-002-0<br>R1, R2 | Define and Document Disturbance Monitoring Equipment Requirements   | S                     | <b>High/Difficult</b> | The Regional Reliability Organization shall provide its requirements for the installation of Disturbance monitoring equipment                                                                                                                                                                          | ECAR Document #14 | B-6 Requirements for Installation of Disturbance Monitoring Equipment                                            | MAIN Guide 2<br>MAIN Guide 10<br>MAIN Guide 12 | The Reliability Handbook, Appendix 4a, has some requirements for disturbance monitoring equipment. MAPP Planning I.F.M1 and I.F.M3 |       |
| PRC-003-0<br>R1, R2 | Regional Procedure for Transmission Protection System Misoperations | P                     | <b>High/Difficult</b> | Each Regional Reliability Organization shall have a procedure for the monitoring, review, analysis, and correction of all transmission protection system misoperations. Each Regional Reliability Organization shall maintain documentation of its procedure                                           | ECAR Document #11 | C-3 Requirements for Protection System Operation Reporting and Analysis                                          | MAIN Guide 10                                  | Mis-operations are currently sent in. MRO staff assigned follow-up responsibilities. MAPP Planning III.A.M4                        |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard           | Short Description                                       | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                                                                                                                           | ECAR                                  | MAAC                                                         | MAIN                           | MRO                                                 | Notes |
|-------------------------|---------------------------------------------------------|-----------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------------------------------|--------------------------------|-----------------------------------------------------|-------|
| PRC-006-0<br>R1, R2, R3 | Development and Documentation of Regional UFLS Programs | S/P                   | <b>High/Difficult</b> | R1. Each Regional Reliability Organization shall develop, coordinate, and document an UFLS program<br>R2. The Regional Reliability Organization shall provide documentation of its UFLS program and its database information<br>R3. The Regional Reliability Organization shall provide documentation of the assessment of its UFLS program | ECAR Document #6<br>ECAR Document #12 | B-8 Underfrequency Load Shedding Program Requirements        | MAIN Guide 1B<br>MAIN Guide 10 | MAPP Planning III.D.M1                              |       |
| PRC-012-0<br>R1, R2     | Special Protection System Review Procedure              | P                     | <b>High/Difficult</b> | The Regional Reliability Organization shall provide affected Regional Reliability Organizations and NERC with documentation of its SPS review procedure                                                                                                                                                                                     | ECAR Document #12                     | A-3 Special Protection System Criteria                       | MAIN Guide 10                  | RAC assigned responsibility. MAPP Planning III.F.M1 |       |
| PRC-013-0<br>R1, R2     | Special Protection System Database                      | P                     | <b>High/Difficult</b> | The Regional Reliability Organization shall provide to affected Regional Reliability Organization(s) and NERC documentation of its database or the information therein                                                                                                                                                                      | ECAR Document #12                     | MAAC SPS Database and A-3 Special Protection System Criteria | MAIN Guide 10                  | RAC assigned responsibility. MAPP Planning III.F.M2 |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard                       | Short Description                                              | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                                                                                                                                                                                      | ECAR                                  | MAAC                                                                          | MAIN                         | MRO                                                | Notes |
|-------------------------------------|----------------------------------------------------------------|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------|------------------------------|----------------------------------------------------|-------|
| PRC-014-0<br>R1, R2, R3             | Special Protection System Assessment                           | P                     | <b>High/Difficult</b> | The Regional Reliability Organization shall provide either a summary report or a detailed report of its assessment of the operation, coordination, and effectiveness of all SPSs installed in its Region                                                                                                                                                                                               | ECAR Document #12                     | A-3 Special Protection System Criteria                                        | MAIN Guide 10                | RAC assigned responsibility. MAPP Planning IILF.M3 |       |
| TPL-005-0<br>R1, R2, R3             | Regional and Interregional Self-Assessment Reliability Reports | P                     | <b>High/Difficult</b> | The Regional Reliability Organization shall provide its Regional and Inter-Regional seasonal, near-term, and longer-term reliability assessments                                                                                                                                                                                                                                                       | ECAR Document #1<br>ECAR Document #15 | B-5 Regional Planning Process - Adequacy and Reliability Assessment Guideline | MAIN Guide 2<br>MAIN Guide 8 | RAC assigned responsibility. MAPP Planning I.B.M1  |       |
| TPL-006-0<br>R1                     | Assessment Data from Regional Reliability Organizations        | S/P                   | <b>High/Difficult</b> | Each Regional Reliability Organization shall provide, as requested (seasonally, annually, or as otherwise specified) by NERC, system data, including past, existing, and future facility and Bulk Electric System data, reports, and system performance information, necessary to assess reliability and compliance with the NERC Reliability Standards and the respective Regional planning criteria. | ECAR Document 15                      | B-5 Regional Planning Process - Adequacy and Reliability Assessment Guideline | MAIN Guide 2<br>MAIN Guide 8 | RAC assigned responsibility. MAPP Planning I.B.M2  |       |
| RRO Compliance Items –Not Standards |                                                                |                       |                       |                                                                                                                                                                                                                                                                                                                                                                                                        |                                       |                                                                               |                              |                                                    |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard             | Short Description           | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                             | ECAR                                                                                                                                          | MAAC | MAIN         | MRO                                                                                                  | Notes                                                |
|---------------------------|-----------------------------|-----------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------|--------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| BAL-001-0                 | Control Performance Measure |                       | C<br>ECAR - S         | <b>High/Difficult</b><br><br>Requirement for regulation reserves in BAL-001<br><b>NEED OTHER REGIONS' REQUIREMENTS</b>                                                                                                                        | ECAR Document #2<br>ECAR has no real-time regulation reserve requirement but has a day-ahead requirement of 1% of the projected BA peak load. |      | MAIN Guide 7 | MRO requirement for Spinning Reserves is for a minimum of 40% Contingency Reserves Policy1 Section B | Compliance item – Needs to be commuted to Compliance |
| BAL-006-0<br>(Sect. D1.5) | Inadvertent Interchange     |                       | P                     | <b>Low/Easy</b><br><br>Each Regional Reliability Organization shall prepare a monthly Inadvertent Interchange summary to monitor the Balancing Authorities' monthly Inadvertent Interchange and all-time accumulated Inadvertent Interchange. | ECAR uses SPP Inadvertent Interchange Tool                                                                                                    |      | MAIN Guide 7 | MAPP Reliability Handbook Policy 1 Section F                                                         |                                                      |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard | Short Description             | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                               | ECAR | MAAC                                  | MAIN         | MRO                                          | Notes |
|---------------|-------------------------------|-----------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------|--------------|----------------------------------------------|-------|
| EOP-001-0     | Emergency Operations Planning |                       | P                     | <b>High/Difficult</b><br>The Regional Reliability Organization shall review and evaluate emergency plans every three years to ensure that the plans consider the applicable elements of Attachment 1-EOP-001-0. |      | PJM Manual M13 – Emergency Operations | MAIN Guide 7 | MAPP Reliability Handbook Policy 6 Section B |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard | Short Description               | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                                                                                                                                                                                                            | ECAR | MAAC                                  | MAIN                          | MRO                                                                | Notes |
|---------------|---------------------------------|-----------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------|-------------------------------|--------------------------------------------------------------------|-------|
| EOP-002-0     | Capacity and Energy Emergencies |                       | P                     | <b>High/Difficult</b><br>Each Balancing Authority and Reliability Coordinator is required to maintain operational data, logs, and voice recordings relevant to the implementation of the Capacity and Energy Emergency Plans for 60 days following the implementation. After an investigation is completed, the Regional Reliability Organization is required to keep the report of the investigation on file for two years. |      | PJM Manual M13 – Emergency Operations | MAIN Guide 1A<br>MAIN Guide 7 | MAPP Reliability Handbook Policy5 Section C and Policy 9 Section F |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard | Short Description            | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                                                                                             | ECAR | MAAC | MAIN         | MRO                                          | Notes |
|---------------|------------------------------|-----------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|--------------|----------------------------------------------|-------|
| PER-002-0     | Operating Personnel Training |                       | P                     | Periodic Review: The Regional Reliability Organization will conduct an on-site review of the Transmission Operator and Balancing Authority operating personnel training program every three years. The operating personnel training records will be reviewed and assessed compared to the program curriculum. |      |      | MAIN Guide 7 | MAPP Reliability Handbook Policy 8 Section B |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard                   | Short Description                    | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                       | ECAR                                                                                                                                                                                                                        | MAAC                                                                | MAIN | MRO | Notes |
|---------------------------------|--------------------------------------|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------|-----|-------|
| EOP-001,<br>EOP-002,<br>EOP-003 | Emergency procedures                 |                       | ECAR - S              | Emergency procedures include use of <ul style="list-style-type: none"> <li>• Emergency gen cap</li> <li>• Load reduction</li> <li>• Voltage reduction</li> <li>• Interruptible load</li> <li>• Public appeal</li> </ul> | ECAR Document 3<br><br>< 59.8 Hz – drop load<br>< 59.7 Hz utilize emergency procedures<br>Automatic UFLS –starts at 59.5 Hz and for every 0.2 Hz change, drop 5% of original load                                           | PJM Manual M13 – Emergency Operations                               |      |     |       |
| MOD-012                         | Dynamics data for Generator Modeling |                       | <b>P</b>              | Generators shall verify data is consistent with actual physical characteristics of equip.                                                                                                                               | ECAR Document 4<br>Annually – Net and gross output<br>5 years - --Net reactive cap<br>5 years – Voltage regulation<br>5 years – speed/load governor controls<br>(Specific test requirements in procedures in this document) | B-3 Rules and Procedures for Determination of Generating Capability |      |     |       |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard        | Short Description | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                                   | ECAR                                                                                                                                                                                                                                                                                                                                                     | MAAC                                 | MAIN | MRO | Notes                                                                             |
|----------------------|-------------------|-----------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------|-----|-----------------------------------------------------------------------------------|
| FAC-001,<br>FAC-002, | Facilities        |                       | <b>P/S</b>            | <p>1. Facilities connection requirements shall be documented, maintained and published</p> <p>2. Modifications to facilities shall be planned and integrated into the Bulk Electric Systems and in compliance with individual planning criteria</p> | <p>ECAR Document 6 - Each TP shall document, maintain and publish Transmission Facilities connection requirements that with all ECAR Standards and the individual company's planning criteria</p> <p>- Each TP and all entities seeking to integrate facilities shall coordinate and cooperate to evaluate the reliability impacts of new facilities</p> | B-7 Facility Connection Requirements |      |     | Documentation only, Separate standard must exist for interconnection requirements |
| FAC-004<br>FAC-005   |                   |                       | <b>P</b>              | <p>1. Transmission Element ratings shall be based on sound engineering principles, adhere applicable electrical codes</p>                                                                                                                           | <p>ECAR Document 17</p> <p>1. Transmission element ratings should adhere to Standard 1</p> <p>2. Transmission</p>                                                                                                                                                                                                                                        | B-7 Facility Connection Requirements |      |     |                                                                                   |

## Regional Reliability Organization Requirements for Documentation from NERC Version 0 Standards

| NERC Standard | Short Description                     | Standard or Procedure | Priority / Difficulty | RRO Requirement for Documentation                                                                                                                                                                                                                                                        | ECAR                                        | MAAC     | MAIN     | MRO  | Notes |
|---------------|---------------------------------------|-----------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------|----------|------|-------|
|               |                                       |                       |                       | and be consistently applied by the transmission element owner<br>2. The rating of a transmission facility shall be the lesser of the:<br>- thermal rating of the most limiting transmission element<br>-relay loadability limit<br>-voltage or steady-state stability loadability limits | Facility ratings shall adhere to Standard 2 |          |          |      |       |
|               | Operating Reserves                    |                       |                       |                                                                                                                                                                                                                                                                                          | Document 2                                  |          | Guide 5A |      |       |
|               | Emergency Procedures during Operation |                       |                       |                                                                                                                                                                                                                                                                                          | Doc. 3                                      |          | Guide 1  | OP-1 |       |
|               | Planning Principles and Guides        |                       |                       |                                                                                                                                                                                                                                                                                          | Doc 1                                       | A-1, B-5 | Guide 2  |      |       |

**Agenda 8.**  
**MRO Voting Procedures Discussion on NERC Issues**

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**Agenda 9.**  
**Reliability Handbook Discussion**

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| Regional Reliability Organization                                                                                                          |            |           |                                                                                                                                                                                                                   |               |    |
|--------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----|
| Regional Reporting Procedure                                                                                                               | RAC        | EOP-004-0 | Use attachment 1-EOP-005-0 of NERC Standards                                                                                                                                                                      | April 1, 2005 | No |
| Regional Blackstart Capability Plan                                                                                                        | RAC        | EOP-007-0 | Include Requirements from EOP-007-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Receiving Input for ATC and TTC Methodologies                                                                                              | RAC        | MOD-003-0 | Include Requirements from MOD-003-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| CBM Methodology Documentation                                                                                                              | RAC        | MOD-004-0 | Include Requirements from MOD-004-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Regional CBM Calculations                                                                                                                  | Compliance | MOD-005-0 | Include Requirements from MOD-005-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Regional TRM Methodology                                                                                                                   | RAC        | MOD-008-0 | Include Requirements from MOD-008-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Verify TRM Values                                                                                                                          | RAC        | MOD-009-0 | Include Requirements from MOD-009-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Regional Steady-State Data Requirements and Reporting Procedures                                                                           | RAC        | MOD-011-0 | Include Requirements from MOD-011-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| RRO Dynamics Data Requirements and Reporting Procedures                                                                                    | RAC        | MOD-013-0 | Include Requirements from MOD-013-0_R1 & MOD-013-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Development of Steady-State System Models                                                                                                  | RAC        | MOD-014-0 | Include Requirements from MOD-014-0_R1 & MOD-014-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Development of Dynamics System Models                                                                                                      | RAC        | MOD-015-0 | Include Requirements from MOD-015-0_R1, MOD-015-0_R2 and MOD-015-0_R3.                                                                                                                                            | April 1, 2005 | No |
| Documentation of Data Reporting Requirements for Actual and Forecast Demands, Net Energy for Load, and Controllable Demand-Side Management | RAC        | MOD-016-0 | Include Requirements from MOD-016-0_R1 (TPL-005-0, TPL-006-0, MOD-010-0, MOD-011-0, MOD-012-0, MOD-013-0, MOD-014-0, MOD-015-0, MOD-016, MOD-017-0, MOD-018-0, MOD-019-0, MOD-020-0, MOD-021-0) and MOD-016-0_R2. | April 1, 2005 | No |
| Define and Document Disturbance Monitoring Equipment Requirements.                                                                         | RAC        | PRC-002-0 | Include Requirements from PRC-002-0_R1 & PRC-002-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Regional Procedure for Transmission Protection System Misoperations.                                                                       | RAC        | PRC-003-0 | Include Requirements from PRC-003-0_R1 & PRC-003-0_R2                                                                                                                                                             | April 1, 2005 | No |

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|                                                                                                                              |            |           |                                                       |               |    |
|------------------------------------------------------------------------------------------------------------------------------|------------|-----------|-------------------------------------------------------|---------------|----|
| Development and Documentation of Regional Reliability Organizations' Underfrequency Load Shedding Programs                   | RAC        | PRC-006-0 | Include Requirements from PRC-006-0_R2 & PRC-006-0_R3 | April 1, 2005 | No |
| Special Protection System Review Procedure                                                                                   | RAC        | PRC-012-0 | Include Requirements from PRC-012-0_R1 & PRC-012-0_R2 | April 1, 2005 | No |
| Special Protection System Database.                                                                                          | RAC        | PRC-013-0 | Include Requirements from PRC-013-0_R1 & PRC-013-0_R2 | April 1, 2005 | No |
| Special Protection System Assessment                                                                                         | RAC        | PRC-014-0 | Include Requirements from PRC-014-0_R2 & PRC-014-0_R3 | April 1, 2005 | No |
| Regional and Interregional Self-Assessment Reliability Reports                                                               | RAC        | TPL-005-0 |                                                       | April 1, 2005 | No |
| Assessment Data from Regional Reliability Organizations                                                                      | RAC        | TPL-006-0 | Include Requirements from TPL-006-0_R1                | April 1, 2005 | No |
| Disturbance Control Performance                                                                                              | GRSP       | BAL-002-0 |                                                       | April 1, 2005 | No |
| Reliability Coordination – Responsibilities and Authorities                                                                  | Compliance | IRO-001-0 |                                                       | April 1, 2005 | No |
| Documentation of Total Transfer Capability and Available Transfer Capability Calculation Methodologies                       | RAC        | MOD-001-0 | Include Requirements from MOD-001-0_R1                | April 1, 2005 | No |
| Review of Transmission Service Provider Total Transfer Capability and Available Transfer Capability Calculations and Results | Compliance | MOD-002-0 | Include Requirements from MOD-002-0_R1                | April 1, 2005 | No |
| <b>Transmission Operator</b>                                                                                                 |            |           |                                                       |               |    |
| Restoration Plan                                                                                                             | RAC        | EOP-005-0 | Use attachment 1-EOP-005-0 of NERC Standards          | April 1, 2005 | No |
| Vegetation Management Plan                                                                                                   | RAC        | FAC-003-0 |                                                       | April 1, 2005 | No |
| Assuring Consistency with Regional UFLS Program Requirements                                                                 | RAC        | PRC-007-0 |                                                       | April 1, 2005 | No |

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|                                                                |            |           |                                                                                                                                                                           |               |    |
|----------------------------------------------------------------|------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----|
| UFLS Performance Following an Underfrequency Event             | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2                                                                                                                     | April 1, 2005 | No |
| Assessment of the Design and Effectiveness of UVLS Program     | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2                                                                                                                     | April 1, 2005 | No |
| Planned Outage Coordination                                    | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                                                                                                                                    | April 1, 2005 | No |
| Reporting SOL and IROL Violations                              | Compliance | TOP-007-0 |                                                                                                                                                                           | April 1, 2005 | No |
| Voltage and Reactive Control                                   | RAC        | VAR-001-0 |                                                                                                                                                                           | April 1, 2005 | No |
| Automatic Generation Control                                   | GRSP       | BAL-005-0 |                                                                                                                                                                           | April 1, 2005 | No |
| <b>Reliability Coordinator</b>                                 |            |           |                                                                                                                                                                           |               |    |
| Transmission Loading Relief Procedure                          | Compliance | IRO-006-0 |                                                                                                                                                                           | April 1, 2005 | No |
| Interconnection-wide Procedure                                 | Compliance | IRO-006-0 | Eastern Interconnection: Use attachment 1-IRO-006-0<br>Western Interconnection: Use website specified in IRO-006-0_R2.2<br>ERCOT use: website specified in IRO-006-0_R2.3 | April 1, 2005 | No |
| Planned Outage Coordination                                    | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                                                                                                                                    | April 1, 2005 | No |
| Reporting SOL and IROL Violations                              | Compliance | TOP-007-0 |                                                                                                                                                                           | April 1, 2005 | No |
| Capacity and Energy Emergencies                                | RAC        | EOP-002-0 |                                                                                                                                                                           | April 1, 2005 | No |
| Reliability Coordination – Responsibilities and Authorities    | Compliance | IRO-001-0 |                                                                                                                                                                           | April 1, 2005 | No |
| <b>Transmission Service Provider</b>                           |            |           |                                                                                                                                                                           |               |    |
| Capacity Benefit Margin (CBM)                                  | RAC        | MOD-006-0 | Include Requirements from MOD-006_R1                                                                                                                                      | April 1, 2005 | No |
| Documentation of Use of CBM                                    | RAC        | MOD-007-0 | Include Requirements from MOD-007_R2                                                                                                                                      | April 1, 2005 | No |
| <b>Load-Serving Entity</b>                                     |            |           |                                                                                                                                                                           |               |    |
| Aggregated Actual and Forecast Demands and Net Energy for Load | RAC        | MOD-017-0 | Include Requirements from MOD-017-0_R1                                                                                                                                    | April 1, 2005 | No |

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|                                                                                                                                            |            |           |                                                                                                                                                                                                                   |               |    |
|--------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----|
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load                  | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Assuring Consistency with Regional UFLS Program Requirements                                                                               | RAC        | PRC-007-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| UFLS Performance Following an Underfrequency Event                                                                                         | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Assessment of the Design and Effectiveness of UVLS Program                                                                                 | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Automatic Generation Control                                                                                                               | GRSP       | BAL-005-0 |                                                                                                                                                                                                                   |               |    |
| Coordination of Plans For New Generation, Transmission, and End-User                                                                       | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                                                                                                                                                             | April 1, 2005 | No |
|                                                                                                                                            |            |           |                                                                                                                                                                                                                   |               |    |
| <b>Planning Authority</b>                                                                                                                  |            |           |                                                                                                                                                                                                                   |               |    |
| Aggregated Actual and Forecast Demands and Net Energy for Load                                                                             | RAC        | MOD-017-0 | Include Requirements from MOD-017-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load                  | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Documentation of Data Reporting Requirements for Actual and Forecast Demands, Net Energy for Load, and Controllable Demand-Side Management | RAC        | MOD-016-0 | Include Requirements from MOD-016-0_R1 (TPL-005-0, TPL-006-0, MOD-010-0, MOD-011-0, MOD-012-0, MOD-013-0, MOD-014-0, MOD-015-0, MOD-016, MOD-017-0, MOD-018-0, MOD-019-0, MOD-020-0, MOD-021-0) and MOD-016-0_R2. | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-User                                                                       | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                                                                                                                                                             | April 1, 2005 | No |

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|                                                                                                                           |            |           |                                                       |               |    |
|---------------------------------------------------------------------------------------------------------------------------|------------|-----------|-------------------------------------------------------|---------------|----|
| <b>Transmission Planner</b>                                                                                               |            |           |                                                       |               |    |
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2 | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-User                                                      | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2 | April 1, 2005 | No |
| <b>Resource Planner</b>                                                                                                   |            |           |                                                       |               |    |
| Aggregated Actual and Forecast Demands and Net Energy for Load                                                            | RAC        | MOD-017-0 | Include Requirements from MOD-017-0_R1                | April 1, 2005 | No |
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2 | April 1, 2005 | No |
| <b>Transmission Owner</b>                                                                                                 |            |           |                                                       |               |    |
| Analysis and Reporting of Transmission Protection System Misoperations                                                    | RAC        | PRC-004-0 | Include Requirements from PRC-003-0_R1 & PRC-004-0_R2 | April 1, 2005 | No |
| Transmission Protection System Maintenance and Testing                                                                    | RAC        | PRC-005-0 | Include Requirements from PRC-005-0_R1 & PRC-003-0_R2 | April 1, 2005 | No |
| Assuring Consistency with Regional UFLS Program Requirements                                                              | RAC        | PRC-007-0 |                                                       | April 1, 2005 | No |
| Underfrequency Load Shedding Equipment Maintenance Programs                                                               | Compliance | PRC-008-0 |                                                       | April 1, 2005 | No |
| UFLS Performance Following an Underfrequency Event                                                                        | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2 | April 1, 2005 | No |

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|                                                                        |            |           |                                                                      |               |    |
|------------------------------------------------------------------------|------------|-----------|----------------------------------------------------------------------|---------------|----|
| Assessment of the Design and Effectiveness of UVLS Program             | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2                | April 1, 2005 | No |
| UVLS System Maintenance and Testing                                    | RAC        | PRC-011-0 | Include Requirements from PRC-011-0_R1 & PRC-011-0_R2                | April 1, 2005 | No |
| Facility Connection Requirements                                       | RAC        | FAC-001-0 | Include Requirements from FAC-001-0_R1, FAC-001-0_R2, & FAC-001-0_R3 |               |    |
| Coordination of Plans For New Generation, Transmission, and End-User   | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                | April 1, 2005 | No |
| Methodologies for Determining Electrical Facility Ratings              | RAC        | FAC-004-0 | Include Requirements from FAC-004-0_R1 & FAC-004-0_R2                | April 1, 2005 | No |
|                                                                        |            |           |                                                                      |               |    |
| <b>Generator Owner</b>                                                 |            |           |                                                                      |               |    |
| Analysis and Reporting of Transmission Protection System Misoperations | RAC        | PRC-004-0 | Include Requirements from PRC-003-0_R1 & PRC-004-0_R2                | April 1, 2005 | No |
| Transmission Protection System Maintenance and Testing                 | RAC        | PRC-005-0 | Include Requirements from PRC-005-0_R1 & PRC-003-0_R2                | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-User   | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                | April 1, 2005 | No |
| Methodologies for Determining Electrical Facility Ratings              | RAC        | FAC-004-0 | Include Requirements from FAC-004-0_R1 & FAC-004-0_R2                | April 1, 2005 | No |
|                                                                        |            |           |                                                                      |               |    |
| <b>Distribution Provider</b>                                           |            |           |                                                                      |               |    |
| Analysis and Reporting of Transmission Protection System Misoperations | RAC        | PRC-004-0 | Include Requirements from PRC-003-0_R1 & PRC-004-0_R2                | April 1, 2005 | No |
| Transmission Protection System Maintenance and Testing                 | RAC        | PRC-005-0 | Include Requirements from PRC-005-0_R1 & PRC-003-0_R2                | April 1, 2005 | No |
| Assuring Consistency with Regional UFLS Program Requirements           | RAC        | PRC-007-0 |                                                                      | April 1, 2005 | No |

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|                                                                      |            |           |                                                       |               |    |
|----------------------------------------------------------------------|------------|-----------|-------------------------------------------------------|---------------|----|
| Underfrequency Load Shedding Equipment Maintenance Programs          | Compliance | PRC-008-0 | Include Requirements from PRC-007-0_R1 & PRC-008-0_R2 | April 1, 2005 | No |
| UFLS Performance Following an Underfrequency Event                   | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2 | April 1, 2005 | No |
| Assessment of the Design and Effectiveness of UVLS Program           | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2 | April 1, 2005 | No |
| UVLS System Maintenance and Testing                                  | RAC        | PRC-011-0 | Include Requirements from PRC-011-0_R1 & PRC-011-0_R2 | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-User | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2 | April 1, 2005 | No |
|                                                                      |            |           |                                                       |               |    |
| <b>Generator Operator</b>                                            |            |           |                                                       |               |    |
| Planned Outage Coordination                                          | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                | April 1, 2005 | No |
| Voltage and Reactive Control                                         | RAC        | VAR-001-0 |                                                       | April 1, 2005 | No |
| Automatic Generation Control                                         | GRSP       | BAL-005-0 |                                                       | April 1, 2005 | No |
|                                                                      |            |           |                                                       |               |    |
| <b>Balancing Authority</b>                                           |            |           |                                                       |               |    |
| Planned Outage Coordination                                          | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                | April 1, 2005 | No |
| Disturbance Control Performance                                      | GRSP       | BAL-002-0 |                                                       | April 1, 2005 | No |
| Automatic Generation Control                                         | GRSP       | BAL-005-0 |                                                       | April 1, 2005 | No |
| Inadvertent Interchange                                              | Compliance | BAL-006-0 |                                                       | April 1, 2005 | No |
| Capacity and Energy Emergencies                                      | RAC        | EOP-002-0 |                                                       | April 1, 2005 | No |
|                                                                      |            |           |                                                       |               |    |
| <b>Purchasing-Selling Entities</b>                                   |            |           |                                                       |               |    |
| Voltage and Reactive Control                                         | RAC        | VAR-001-0 |                                                       | April 1, 2005 | No |
|                                                                      |            |           |                                                       |               |    |
| <b>Reserve Sharing Groups</b>                                        |            |           |                                                       |               |    |
| Disturbance Control Performance                                      | GRSP       | BAL-002-0 |                                                       | April 1, 2005 | No |

| Regional Reliability Organization                                                                                                          |            |           |                                                                                                                                                                                                                   |               |    |
|--------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----|
| Regional Reporting Procedure                                                                                                               | RAC        | EOP-004-0 | Use attachment 1-EOP-005-0 of NERC Standards                                                                                                                                                                      | April 1, 2005 | No |
| Regional Blackstart Capability Plan                                                                                                        | RAC        | EOP-007-0 | Include Requirements from EOP-007-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Receiving Input for ATC and TTC Methodologies                                                                                              | RAC        | MOD-003-0 | Include Requirements from MOD-003-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| CBM Methodology Documentation                                                                                                              | RAC        | MOD-004-0 | Include Requirements from MOD-004-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Regional CBM Calculations                                                                                                                  | Compliance | MOD-005-0 | Include Requirements from MOD-005-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Regional TRM Methodology                                                                                                                   | RAC        | MOD-008-0 | Include Requirements from MOD-008-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Verify TRM Values                                                                                                                          | RAC        | MOD-009-0 | Include Requirements from MOD-009-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Regional Steady-State Data Requirements and Reporting Procedures                                                                           | RAC        | MOD-011-0 | Include Requirements from MOD-011-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| RRO Dynamics Data Requirements and Reporting Procedures                                                                                    | RAC        | MOD-013-0 | Include Requirements from MOD-013-0_R1 & MOD-013-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Development of Steady-State System Models                                                                                                  | RAC        | MOD-014-0 | Include Requirements from MOD-014-0_R1 & MOD-014-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Development of Dynamics System Models                                                                                                      | RAC        | MOD-015-0 | Include Requirements from MOD-015-0_R1, MOD-015-0_R2 and MOD-015-0_R3.                                                                                                                                            | April 1, 2005 | No |
| Documentation of Data Reporting Requirements for Actual and Forecast Demands, Net Energy for Load, and Controllable Demand-Side Management | RAC        | MOD-016-0 | Include Requirements from MOD-016-0_R1 (TPL-005-0, TPL-006-0, MOD-010-0, MOD-011-0, MOD-012-0, MOD-013-0, MOD-014-0, MOD-015-0, MOD-016, MOD-017-0, MOD-018-0, MOD-019-0, MOD-020-0, MOD-021-0) and MOD-016-0_R2. | April 1, 2005 | No |
| Define and Document Disturbance Monitoring Equipment Requirements.                                                                         | RAC        | PRC-002-0 | Include Requirements from PRC-002-0_R1 & PRC-002-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Regional Procedure for Transmission Protection System Misoperations.                                                                       | RAC        | PRC-003-0 | Include Requirements from PRC-003-0_R1 & PRC-003-0_R2                                                                                                                                                             | April 1, 2005 | No |

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|                                                                                                                              |            |           |                                                       |               |    |
|------------------------------------------------------------------------------------------------------------------------------|------------|-----------|-------------------------------------------------------|---------------|----|
| Development and Documentation of Regional Reliability Organizations' Underfrequency Load Shedding Programs                   | RAC        | PRC-006-0 | Include Requirements from PRC-006-0_R2 & PRC-006-0_R3 | April 1, 2005 | No |
| Special Protection System Review Procedure                                                                                   | RAC        | PRC-012-0 | Include Requirements from PRC-012-0_R1 & PRC-012-0_R2 | April 1, 2005 | No |
| Special Protection System Database.                                                                                          | RAC        | PRC-013-0 | Include Requirements from PRC-013-0_R1 & PRC-013-0_R2 | April 1, 2005 | No |
| Special Protection System Assessment                                                                                         | RAC        | PRC-014-0 | Include Requirements from PRC-014-0_R2 & PRC-014-0_R3 | April 1, 2005 | No |
| Regional and Interregional Self-Assessment Reliability Reports                                                               | RAC        | TPL-005-0 |                                                       | April 1, 2005 | No |
| Assessment Data from Regional Reliability Organizations                                                                      | RAC        | TPL-006-0 | Include Requirements from TPL-006-0_R1                | April 1, 2005 | No |
| Disturbance Control Performance                                                                                              | GRSP       | BAL-002-0 |                                                       | April 1, 2005 | No |
| Reliability Coordination – Responsibilities and Authorities                                                                  | Compliance | IRO-001-0 |                                                       | April 1, 2005 | No |
| Documentation of Total Transfer Capability and Available Transfer Capability Calculation Methodologies                       | RAC        | MOD-001-0 | Include Requirements from MOD-001-0_R1                | April 1, 2005 | No |
| Review of Transmission Service Provider Total Transfer Capability and Available Transfer Capability Calculations and Results | Compliance | MOD-002-0 | Include Requirements from MOD-002-0_R1                | April 1, 2005 | No |
| <b>Transmission Operator</b>                                                                                                 |            |           |                                                       |               |    |
| Restoration Plan                                                                                                             | RAC        | EOP-005-0 | Use attachment 1-EOP-005-0 of NERC Standards          | April 1, 2005 | No |
| Vegetation Management Plan                                                                                                   | RAC        | FAC-003-0 |                                                       | April 1, 2005 | No |
| Assuring Consistency with Regional UFLS Program Requirements                                                                 | RAC        | PRC-007-0 |                                                       | April 1, 2005 | No |

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|                                                                |            |           |                                                                                                                                                                     |               |    |
|----------------------------------------------------------------|------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----|
| UFLS Performance Following an Underfrequency Event             | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2                                                                                                               | April 1, 2005 | No |
| Assessment of the Design and Effectiveness of UVLS Program     | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2                                                                                                               | April 1, 2005 | No |
| Planned Outage Coordination                                    | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                                                                                                                              | April 1, 2005 | No |
| Reporting SOL and IROL Violations                              | Compliance | TOP-007-0 |                                                                                                                                                                     | April 1, 2005 | No |
| Voltage and Reactive Control                                   | RAC        | VAR-001-0 |                                                                                                                                                                     | April 1, 2005 | No |
| Automatic Generation Control                                   | GRSP       | BAL-005-0 |                                                                                                                                                                     | April 1, 2005 | No |
|                                                                |            |           |                                                                                                                                                                     |               |    |
| <b>Reliability Coordinator</b>                                 |            |           |                                                                                                                                                                     |               |    |
| Transmission Loading Relief Procedure                          | Compliance | IRO-006-0 |                                                                                                                                                                     | April 1, 2005 | No |
| Interconnection-wide Procedure                                 | Compliance | IRO-006-0 | Eastern Interconnection: Use attachment 1-IRO-006-0 Western Interconnection: Use website specified in IRO-006-0_R2.2 ERCOT use: website specified in IRO-006-0_R2.3 | April 1, 2005 | No |
| Planned Outage Coordination                                    | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                                                                                                                              | April 1, 2005 | No |
| Reporting SOL and IROL Violations                              | Compliance | TOP-007-0 |                                                                                                                                                                     | April 1, 2005 | No |
| Capacity and Energy Emergencies                                | RAC        | EOP-002-0 |                                                                                                                                                                     | April 1, 2005 | No |
| Reliability Coordination – Responsibilities and Authorities    | Compliance | IRO-001-0 |                                                                                                                                                                     | April 1, 2005 | No |
|                                                                |            |           |                                                                                                                                                                     |               |    |
| <b>Transmission Service Provider</b>                           |            |           |                                                                                                                                                                     |               |    |
| Capacity Benefit Margin (CBM)                                  | RAC        | MOD-006-0 | Include Requirements from MOD-006_R1                                                                                                                                | April 1, 2005 | No |
| Documentation of Use of CBM                                    | RAC        | MOD-007-0 | Include Requirements from MOD-007_R2                                                                                                                                | April 1, 2005 | No |
|                                                                |            |           |                                                                                                                                                                     |               |    |
| <b>Load-Serving Entity</b>                                     |            |           |                                                                                                                                                                     |               |    |
| Aggregated Actual and Forecast Demands and Net Energy for Load | RAC        | MOD-017-0 | Include Requirements from MOD-017-0_R1                                                                                                                              | April 1, 2005 | No |

|                                                                                                                                            |            |           |                                                                                                                                                                                                                   |               |    |
|--------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----|
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load                  | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Assuring Consistency with Regional UFLS Program Requirements                                                                               | RAC        | PRC-007-0 |                                                                                                                                                                                                                   | April 1, 2005 | No |
| UFLS Performance Following an Underfrequency Event                                                                                         | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Assessment of the Design and Effectiveness of UVLS Program                                                                                 | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Automatic Generation Control                                                                                                               | GRSP       | BAL-005-0 |                                                                                                                                                                                                                   |               |    |
| Coordination of Plans For New Generation, Transmission, and End-User                                                                       | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                                                                                                                                                             | April 1, 2005 | No |
|                                                                                                                                            |            |           |                                                                                                                                                                                                                   |               |    |
| <b>Planning Authority</b>                                                                                                                  |            |           |                                                                                                                                                                                                                   |               |    |
| Aggregated Actual and Forecast Demands and Net Energy for Load                                                                             | RAC        | MOD-017-0 | Include Requirements from MOD-017-0_R1                                                                                                                                                                            | April 1, 2005 | No |
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load                  | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2                                                                                                                                                             | April 1, 2005 | No |
| Documentation of Data Reporting Requirements for Actual and Forecast Demands, Net Energy for Load, and Controllable Demand-Side Management | RAC        | MOD-016-0 | Include Requirements from MOD-016-0_R1 (TPL-005-0, TPL-006-0, MOD-010-0, MOD-011-0, MOD-012-0, MOD-013-0, MOD-014-0, MOD-015-0, MOD-016, MOD-017-0, MOD-018-0, MOD-019-0, MOD-020-0, MOD-021-0) and MOD-016-0_R2. | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-User                                                                       | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                                                                                                                                                             | April 1, 2005 | No |

|                                                                                                                           |            |           |                                                       |               |    |
|---------------------------------------------------------------------------------------------------------------------------|------------|-----------|-------------------------------------------------------|---------------|----|
| <b>Transmission Planner</b>                                                                                               |            |           |                                                       |               |    |
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2 | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-User                                                      | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2 | April 1, 2005 | No |
| <b>Resource Planner</b>                                                                                                   |            |           |                                                       |               |    |
| Aggregated Actual and Forecast Demands and Net Energy for Load                                                            | RAC        | MOD-017-0 | Include Requirements from MOD-017-0_R1                | April 1, 2005 | No |
| Treatment of Nonmember Demand Data and How Uncertainties are Addressed in the Forecasts of Demand and Net Energy for Load | RAC        | MOD-018-0 | Include Requirements from MOD-018-0_R1 & MOD-018-0_R2 | April 1, 2005 | No |
| <b>Transmission Owner</b>                                                                                                 |            |           |                                                       |               |    |
| Analysis and Reporting of Transmission Protection System Misoperations                                                    | RAC        | PRC-004-0 | Include Requirements from PRC-003-0_R1 & PRC-004-0_R2 | April 1, 2005 | No |
| Transmission Protection System Maintenance and Testing                                                                    | RAC        | PRC-005-0 | Include Requirements from PRC-005-0_R1 & PRC-003-0_R2 | April 1, 2005 | No |
| Assuring Consistency with Regional UFLS Program Requirements                                                              | RAC        | PRC-007-0 |                                                       | April 1, 2005 | No |
| Underfrequency Load Shedding Equipment Maintenance Programs                                                               | Compliance | PRC-008-0 |                                                       | April 1, 2005 | No |
| UFLS Performance Following an Underfrequency Event                                                                        | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2 | April 1, 2005 | No |

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|                                                                        |            |           |                                                                      |               |    |
|------------------------------------------------------------------------|------------|-----------|----------------------------------------------------------------------|---------------|----|
| Assessment of the Design and Effectiveness of UVLS Program             | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2                | April 1, 2005 | No |
| UVLS System Maintenance and Testing                                    | RAC        | PRC-011-0 | Include Requirements from PRC-011-0_R1 & PRC-011-0_R2                | April 1, 2005 | No |
| Facility Connection Requirements                                       | RAC        | FAC-001-0 | Include Requirements from FAC-001-0_R1, FAC-001-0_R2, & FAC-001-0_R3 |               |    |
| Coordination of Plans For New Generation, Transmission, and End-User   | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                | April 1, 2005 | No |
| Methodologies for Determining Electrical Facility Ratings              | RAC        | FAC-004-0 | Include Requirements from FAC-004-0_R1 & FAC-004-0_R2                | April 1, 2005 | No |
|                                                                        |            |           |                                                                      |               |    |
| <b>Generator Owner</b>                                                 |            |           |                                                                      |               |    |
| Analysis and Reporting of Transmission Protection System Misoperations | RAC        | PRC-004-0 | Include Requirements from PRC-003-0_R1 & PRC-004-0_R2                | April 1, 2005 | No |
| Transmission Protection System Maintenance and Testing                 | RAC        | PRC-005-0 | Include Requirements from PRC-005-0_R1 & PRC-003-0_R2                | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-User   | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2                | April 1, 2005 | No |
| Methodologies for Determining Electrical Facility Ratings              | RAC        | FAC-004-0 | Include Requirements from FAC-004-0_R1 & FAC-004-0_R2                | April 1, 2005 | No |
|                                                                        |            |           |                                                                      |               |    |
| <b>Distribution Provider</b>                                           |            |           |                                                                      |               |    |
| Analysis and Reporting of Transmission Protection System Misoperations | RAC        | PRC-004-0 | Include Requirements from PRC-003-0_R1 & PRC-004-0_R2                | April 1, 2005 | No |
| Transmission Protection System Maintenance and Testing                 | RAC        | PRC-005-0 | Include Requirements from PRC-005-0_R1 & PRC-003-0_R2                | April 1, 2005 | No |
| Assuring Consistency with Regional UFLS Program Requirements           | RAC        | PRC-007-0 |                                                                      | April 1, 2005 | No |

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|                                                                      |            |           |                                                       |               |    |
|----------------------------------------------------------------------|------------|-----------|-------------------------------------------------------|---------------|----|
| Underfrequency Load Shedding Equipment Maintenance Programs          | Compliance | PRC-008-0 | Include Requirements from PRC-007-0_R1 & PRC-008-0_R2 | April 1, 2005 | No |
| UFLS Performance Following an Underfrequency Event                   | RAC        | PRC-009-0 | Include Requirements from PRC-009-0_R1 & PRC-009-0_R2 | April 1, 2005 | No |
| Assessment of the Design and Effectiveness of UVLS Program           | Compliance | PRC-010-0 | Include Requirements from PRC-010-0_R1 & PRC-010-0_R2 | April 1, 2005 | No |
| UVLS System Maintenance and Testing                                  | RAC        | PRC-011-0 | Include Requirements from PRC-011-0_R1 & PRC-011-0_R2 | April 1, 2005 | No |
| Coordination of Plans For New Generation, Transmission, and End-User | Compliance | FAC-002-0 | Include Requirements from FAC-002-0_R1 & FAC-002-0_R2 | April 1, 2005 | No |
|                                                                      |            |           |                                                       |               |    |
| <b>Generator Operator</b>                                            |            |           |                                                       |               |    |
| Planned Outage Coordination                                          | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                | April 1, 2005 | No |
| Voltage and Reactive Control                                         | RAC        | VAR-001-0 |                                                       | April 1, 2005 | No |
| Automatic Generation Control                                         | GRSP       | BAL-005-0 |                                                       | April 1, 2005 | No |
|                                                                      |            |           |                                                       |               |    |
| <b>Balancing Authority</b>                                           |            |           |                                                       |               |    |
| Planned Outage Coordination                                          | Compliance | TOP-003-0 | Include Requirements from TOP-003-0_R1                | April 1, 2005 | No |
| Disturbance Control Performance                                      | GRSP       | BAL-002-0 |                                                       | April 1, 2005 | No |
| Automatic Generation Control                                         | GRSP       | BAL-005-0 |                                                       | April 1, 2005 | No |
| Inadvertent Interchange                                              | Compliance | BAL-006-0 |                                                       | April 1, 2005 | No |
| Capacity and Energy Emergencies                                      | RAC        | EOP-002-0 |                                                       | April 1, 2005 | No |
|                                                                      |            |           |                                                       |               |    |
| <b>Purchasing-Selling Entities</b>                                   |            |           |                                                       |               |    |
| Voltage and Reactive Control                                         | RAC        | VAR-001-0 |                                                       | April 1, 2005 | No |
|                                                                      |            |           |                                                       |               |    |
| <b>Reserve Sharing Groups</b>                                        |            |           |                                                       |               |    |
| Disturbance Control Performance                                      | GRSP       | BAL-002-0 |                                                       | April 1, 2005 | No |

**Agenda 10.**  
**NSRS Action Item Requests**

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**Agenda 10.a.**  
**NSRS Action Item Requests**  
Current Activities Status

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## **Status Report Regarding the NERC Standards Review Subcommittee (NSRS)**

Provided for the MRO Standards Committee  
Aug, 2005

Since the previous MRO SC meeting, the NSRS has submitted comments on behalf of the MRO on the following NERC SARs and Standards, and NAESB that were out for comment:

- Phase III and IV Planning Standards SAR(s)
- Version 4 revision proposal to the Standards Process Manual
- Missing Compliance Elements from Ver 0 SAR
- Congestion Management White Paper Option 3A
- Reliability Coordinator Certification Organizational Standard
- Transmission Operator Certification Organizational Standard
- Balancing Authority Certification Organizational Standard
- Cyber Security Standard (Permanent)

At the time of this submission, the NSRS is also in the process of developing comments for submission on the following NERC activity and Standards out for comment:

- ATC/TTC/AFC and CBM/TRM Revisions SAR
- Coordinate Operations Implementation Plan

The only NERC actions out for comment in this period for which the NSRS did not formulate an MRO response was for the Implementation Plan related to the Determine Facility Ratings, Operating Limits, and Transfer Capabilities Standard. This comment period was inadvertently missed. The committee has made use of e-mail communications and conference calls augmented by webEx to fulfill its tasks, and these formats seem to be working effectively.

Due to the ongoing workload associated with formulating these comments, the NSRS requests that the SC authorize the expansion of the NSRS roster from 10 members to 15 members. This would assist the group by providing more individuals to perform as the Point of Contact, and providing additional individuals to assure adequate coverage of topics discussed during conference calls. NERC has brought many topics forward for comment in recent history, and it appears that this trend will continue. It is the Committee's hope that expanding its membership will put it in a better position to cover all of these actions adequately.

Respectfully Submitted,  
Darrick Moe, NSRS Chair  
Aug. 1, 2005

Status of MRO Commenting

| <u>SAR/STD/Plans for Comment</u>                           | <u>Number</u>  | <u>Point of Contact</u> | <u>Posting Dates</u>  | <u>Comments Due to NSRS</u> | <u>CC to Discuss Comments</u> | <u>Comments Due to MRO</u> | <u>Comments Due from MRO</u> | <u>Comments Due to SC Chair</u> | <u>Comments Due to NERC</u> | <u>Status</u> | <u>Notes</u> |
|------------------------------------------------------------|----------------|-------------------------|-----------------------|-----------------------------|-------------------------------|----------------------------|------------------------------|---------------------------------|-----------------------------|---------------|--------------|
| Frequency Response                                         | SAR            | Terry Bilke             | 1/17/05 - 2/17/05     | 1/27/2005                   | 2/1/2005                      | 2/3/2005                   | 2/10/2005                    | 2/15/05                         | 2/17/05                     | Complete      |              |
| Cyber Security Standard (Permanent)                        | CIP 002 - 009  | Darrick Moe             | 1/17/05 - 2/17/05     | 1/27/2005                   | 2/1/2005                      | 2/3/2005                   | 2/10/2005                    | 2/15/05                         | 2/17/05                     | Complete      |              |
| Nuclear Offsite Power Supply Reliability Resource Adequacy | SAR            | Al Boesch               | 4/1/05 - 5/2/05       | 4/11/2005                   | 4/14/2005                     | 4/18/2005                  | 4/25/2005                    | 4/28/05                         | 5/2/05                      | Complete      |              |
| Phase III-IV Planning Standards                            | SAR            | Robert Coish            | 2/18/05 - 3/21/05     | 3/4/2005                    | 3/8/2005                      | 3/9/2005                   | 3/16/2005                    | 3/18/05                         | 3/21/05                     | Complete      |              |
| FERC IA Wind NOPR                                          | 18 CFR Part 35 | Dennis Florom           | 4/22/05 - 6/13/05     | 5/12/2005                   | 5/18/2005                     | 5/19/2005                  | 6/8/2005                     | 6/10/05                         | 6/13/05                     | Complete      |              |
| Missing Compliance Elements from V-0                       | SAR            | Ken Goldsmith           | 1/24/05 - 2/24/05     | 2/11/2005                   | 2/15/2005                     | 2/16/2005                  | 2/21/2005                    | 2/22/05                         | 2/24/05                     | Complete      |              |
| Improve and Streamline Standards Process Manual            | SAR            | Todd Gosnell            | 5/9/05 - 6/8/05       | 5/16/2005                   | 5/18/2005                     | 5/23/2005                  | 5/31/2005                    | 6/6/05                          | 6/8/05                      | Complete      |              |
| Congestion Management White Paper Option 3A                | V.4.0 - D.1    | Wayne Guttormson        | 4/1/05 - 5/16/05      | 4/18/2005                   | 4/21/2005                     | 5/2/2005                   | 5/9/2005                     | 5/12/05                         | 5/16/05                     | Complete      |              |
| Determine Facility Ratings                                 | FAC-008-1      | Jim Maenner             | 5/16/05 - 6/13/05     | 5/25/2005                   | 5/27/2005                     | 6/1/2005                   | 6/7/2005                     | 6/9/05                          | 6/13/05                     | Complete      |              |
|                                                            |                | Tom Mielnik             | 2/18/05 - 4/4/05      | 3/4/2005                    | 3/8/2005                      | 3/9/2005                   | 3/28/2005                    | 3/31/05                         | 4/3/05                      | Complete      |              |
|                                                            |                |                         |                       |                             |                               |                            |                              |                                 |                             |               |              |
| Reliability Coordinator Certification                      | ORG-020-027-1  | Terry Bilke             | 6/1/05 - 7/1/05       | 6/15/2005                   | 6/17/2005                     | 6/20/2005                  | 7/1/2005                     | 7/6/05                          | 7/8/05                      | Complete      |              |
| Cyber Security Standard (Permanent)                        | CIP 002 - 009  | Darrick Moe             | 6/10/2005 - 7/11/2005 | 5/23/2005                   | 5/25/2005                     | 6/20/2005                  | 6/30/2005                    | 7/5/05                          | 7/11/05                     | Complete      |              |
|                                                            | Draft 3        | Al Boesch               |                       |                             |                               |                            |                              |                                 |                             |               |              |
| ATC/TTC/AFC and CBM/TRM Revisions                          | SAR            | Ken Goldsmith           | 7/8/05 - 8/8/05       | 7/20/2005                   | 7/22/2005                     | 7/25/2005                  | 8/1/2005                     | 8/4/05                          | 8/8/05                      |               |              |
| Coord Operations Implementation Plan                       | IRO-014-016-1  | Todd Gosnell            | 7/8/05 - 8/8/05       | 7/15/2005                   | 7/18/2005                     | 7/25/2005                  | 8/1/2005                     | 8/4/05                          | 8/8/05                      |               |              |
|                                                            |                | Jim Maenner             |                       |                             |                               |                            |                              |                                 |                             |               |              |
|                                                            |                |                         |                       |                             |                               |                            |                              |                                 |                             |               |              |
| Transmission Operator Certification                        | ORG-001-008-1  | Robert Coish            | 6/1/05 - 7/1/05       | 6/14/2005                   | 6/16/2005                     | 6/20/2005                  | 7/1/2005                     | 7/6/05                          | 7/8/05                      | Complete      |              |
|                                                            |                | Dennis Florom           |                       |                             |                               |                            |                              |                                 |                             |               |              |
| Balancing Authority Certification                          | ORG-009-018-1  | Wayne Guttormson        | 6/1/05 - 7/1/05       | 6/13/2005                   | 6/15/2005                     | 6/20/2005                  | 7/1/2005                     | 7/6/05                          | 7/8/05                      | Complete      |              |
| Vegetation Management                                      | FAC-003-1      | Tom Mielnik             | 6/16/05 - 7/31/05     | 7/6/2005                    | 7/8/2005                      | 7/13/2005                  | 7/20/2005                    | 7/27/05                         | 7/29/05                     |               |              |

**Agenda 10.b.**  
**NSRS Action Item Requests**  
Motion  
Approve Wording Changes to NSRS Scope Document

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## Midwest Reliability Organization NERC Standards Review Subcommittee

### Scope of Subcommittee:

The Midwest Reliability Organization (MRO) needs an efficient process for commenting on NERC SARs and Standards. The MRO Board has tasked the Standards Committee (SC) with making these comments. Due to the limited time that NERC provides for submitting comments, the MRO has developed a process that clearly defines the various roles of those involved in developing these comments. The SC has established a standing Subcommittee, the NERC Standards Review Subcommittee (NSRS), and tasked it with the role of carrying out this process for all NERC SARs, Standards, and policies that are posted for public comment. The Chair of the SC may task the NSRS with reviewing documents out for comment from other industry entities, such as FERC, DOE or NAESB, on a case-by-case basis.

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- This Subcommittee will need to have experienced operating and planning personnel.
- The Subcommittee should have representation from each MRO sector
- The Subcommittee representation should ensure adequate geographic coverage

### Commenting Process Definition:

The comments need to reflect the concerns of all MRO members and MRO Committees (Standards Committee, Compliance Committee, and Reliability Assessment Committee) and should identify all the MRO members supporting such comments. Since it is likely that there will be times when some MRO Members may not agree with the comments, the process contains a mechanism to allow a MRO Member to withdraw its support of the comment. The following is an initial description of a process that would accomplish these goals.

1. The MRO Standards Manager will monitor the NERC web-site to identify when NERC is requesting comments on SARs or Standards
2. The MRO Standards Manager will notify the subcommittee that NERC has requested comment on a SAR or Standard and assign a Point of Contact (POC). The assignment spreadsheet (referenced hereafter as the spreadsheet) will be updated and sent out to the SC each time a new SAR or Standard is issued.
3. The subcommittee POC will develop an Initial Draft comment on the SAR or Standard. The initial Draft Comments will be circulated among the SC members prior to submitting to the MRO membership. These comments will be submitted to the NSRS Members no later than 1/3 of the time through the commenting period. The MRO Standards Manger will assign the exact dates associated with this deadline and note them on the spreadsheet.
4. The NSRS Members will provide comments on the draft to the NSRS by a deadline established and noted on the spreadsheet. The POC will consolidate those comments into the NSRS proposed submittal no later than 2/3<sup>rd</sup>s of the way through the commenting period (exact date to be noted in the spreadsheet). This

effort of consolidating comments will typically include a conference call of the NSRS, to be organized between the POC and the MRO Standards Manager.

5. The Initial Draft comment will be circulated to all MRO Committees and MRO Members for additional comments. Comments will be due back from these groups to the NSRS POC, within about 1 week, as defined in the spreadsheet.
6. The Subcommittee POC, will review the comments to the Initial Draft and attempt to incorporate these comments in the Final Draft
  - o If a Member's comment can't be addressed they will be provided the opportunity to indicate they don't support the comment and the POC will, for clarity, indicate that the Member(s) did not support the comments on the Comment Form submitted to NERC
  - o The names of all MRO Members that did not ask to be removed, will be included on the NERC Comment Form
  - o In the event the Members (those identified on the roster) of the NSRS can not come to consensus on a comment, the comment will not be forwarded to NERC. Note that all Members have the affirmative obligation to assure such dissent is injected into the commenting process; the POC does not have the obligation of checking explicitly with each Member on each comment.
7. The Subcommittee POC, will provide the Chair of the Standards Committee, the Vice Chair of the Standards Committee, the Chair of the NSRS, and MRO Standards Manager with the Final Comments. This may be done up until the day before the comments are due to NERC.
8. After concurrence from the Standards Committee Chair (or Vice Chair, in the absence of the Chair), the Standards Manager will forward the comments to NERC, MRO Committees, and the NSRS.

Deleted: Point of Contact

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Deleted: ,

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Deleted: MRO Members

Note that for the purposes of this document, Joe Knight will represent the MRO Standards Manager. Mr. Knight can be reached at 651-632-8530.

Rev: 7/6/05  
POC: Darrick Moe

Deleted: 1/25

**Agenda 10.c.**  
**NSRS Action Item Requests**  
Motion  
Increase Size of NSRS Subcommittee

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**MRO**  
**NERC STANDARDS REVIEW SUBCOMMITTEE**  
**Roster**

| Name                           | Sector | Member | Mailing Address                                                                                            | Phone<br>Fax                 | E-mail                                                                                   | Specialty |
|--------------------------------|--------|--------|------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------------------|-----------|
| Al Boesch                      | C      | NPPD   | Nebraska Public Power District<br>2060 West Platte River Drive<br>P.O. Box 1000<br>Doniphan, NE 68832-1000 | 402-845-5210<br>402-845-5205 | <a href="mailto:agboesc@nppd.com">agboesc@nppd.com</a>                                   | Operating |
| Terry Bilke                    | TSO>   | MISO   | Midwest ISO Inc.<br>701 City Center Dr.<br>Carmel, IN 46032                                                | 317-249-5463<br>317-249-5703 | <a href="mailto:tbilke@midwestiso.org">tbilke@midwestiso.org</a>                         | Operating |
| Robert Coish                   | CU     | MHEBo  | Manitoba Hydro<br>P.O. Box 815<br>Winnipeg, Manitoba R3C 2P4                                               | 204-487-5479<br>204-487-5496 | <a href="mailto:rcoish@hydro.mb.ca">rcoish@hydro.mb.ca</a>                               | Planning  |
| Dennis Florom                  | C      | LES    | Lincoln Electric System<br>1040 "O" Street<br>P.O. Box 80869<br>Lincoln, NE 68508-0869                     | 402-473-3384<br>402-475-1716 | <a href="mailto:dflorom@les.com">dflorom@les.com</a>                                     | Planning  |
| Ken Goldsmith                  | IOU    | ALTW   | Alliant Energy<br>P.O. Box 351<br>Cedar Rapids, IA 52406-0351                                              | 319-786-4167<br>319-786-4567 | <a href="mailto:kengoldsmith@alliantenergy.com">kengoldsmith@alliantenergy.com</a>       | Operating |
| Todd Gosnell                   | C      | OPPD   | Omaha Public Power District<br>4325 Jones Plaza<br>ECC-2 Operations<br>Omaha, NE 68105                     | 402-552-5670<br>402-552-5689 | <a href="mailto:wgosnell@oppd.com">wgosnell@oppd.com</a>                                 | Operating |
| Wayne Guttormson               | CU     | SPC    | Saskatchewan Power Corporation<br>2025 Victoria Avenue<br>Regina, Saskatchewan S4P 0S1<br>Canada           | 306-566-2166<br>306-566-2548 | <a href="mailto:wguttormson@saskpower.com">wguttormson@saskpower.com</a>                 | Planning  |
| Jim Maenner                    | IOU    | WPS    | WPS Corporation<br>2830 South Ashland Avenue<br>PO Box 19002<br>Green Bay, WI 54307-9002                   | 920-617-4119<br>920-617-4145 | <a href="mailto:jmaenne@wpsr.com">jmaenne@wpsr.com</a>                                   | Operating |
| Tom Mielnik                    | IOU    | MEC    | MidAmerican Energy Company<br>106 East Second Street<br>Box 4350<br>Davenport, IA 52801                    | 563-333-8129<br>563-333-8112 | <a href="mailto:temielnik@midamerican.com">temielnik@midamerican.com</a>                 | Planning  |
| Darrick Moe<br>(Chairman)      | FPMA   | WAPA   | Western Area Power<br>Administration<br>1330 41 <sup>st</sup> Street SE<br>Watertown, SD 57201             | 605-882-7501<br>605-882-7409 | <a href="mailto:moe@wapa.gov">moe@wapa.gov</a>                                           | Operating |
| Joe Knight,<br>Secretary       |        | MRO    | Midwest Reliability Organization<br>1125 Energy Park Drive<br>St. Paul, MN 55108                           | 651-632-8530<br>651-632-8572 | <a href="mailto:je.knight@midwestreliability.org">je.knight@midwestreliability.org</a>   |           |
| Ben Deutsch,<br>Alt. Secretary |        | MRO    | Midwest Reliability Organization<br>1125 Energy Park Drive<br>St. Paul, MN 55108                           | 651-632-8574<br>651-632-8572 | <a href="mailto:bg.deutsch@midwestreliability.org">bg.deutsch@midwestreliability.org</a> |           |
| <b>MRO Exploder List</b>       |        |        |                                                                                                            |                              | <a href="mailto:mro-nrs@midwestreliability.org">mro-nrs@midwestreliability.org</a>       |           |

**Agenda 11.**  
**NERC Reports**

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## **SAMPLE NERC REPRESENTATIVE REPORTING FORM**

Date:

To: {Name of Midwest Reliability Organization responsible organization  
working group or committee for the activity/function}

From: {Name of MRO NERC Representative}

Re: NERC Report {Meeting NERC Body and Dates of Travel}

### **Summary of Actions Taken by {Name of NERC Body}**

[Provide a summary of actions taken by the NERC Body at this meeting and any actions taken by the Body since your last report and the impact the NERC actions will have on MRO and its members.]

### **Summary of Direction Provided by {Name of MRO organizational working group or committee to whom this report is addressed}**

[Provide a summary of the MRO position on the items considered by the NERC Body]

### **Next Steps**

[Discuss anticipated future actions by the NERC Body and seek guidance from the MRO Body.]

**Agenda 11.a.**  
**NERC Reports**  
Standards Evaluation Subcommittee Report

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## **SAMPLE NERC REPRESENTATIVE REPORTING FORM**

Date:

To: {Name of Midwest Reliability Organization responsible organization working group or committee for the activity/function}

From: {Name of MRO NERC Representative}

Re: NERC Report {Meeting NERC Body and Dates of Travel}

### **Summary of Actions Taken by {Name of NERC Body}**

[Provide a summary of actions taken by the NERC Body at this meeting and any actions taken by the Body since your last report and the impact the NERC actions will have on MRO and its members.]

### **Summary of Direction Provided by {Name of MRO organizational working group or committee to whom this report is addressed}**

[Provide a summary of the MRO position on the items considered by the NERC Body]

### **Next Steps**

[Discuss anticipated future actions by the NERC Body and seek guidance from the MRO Body.]

**Agenda 11.b.**  
**NERC Reports**  
Interchange Subcommittee Report

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## NERC REPRESENTATIVE REPORTING FORM

Date: 8/02/05

To: MRO Standards Committee

From: Alan Boesch

Re: NERC Coordinate Interchange Standard Drafting Team Meeting  
07/13/05-07/15/05

### **Summary of Actions Taken by {Name of NERC Body}**

The Coordinate Interchange Standard Drafting team met to modify draft standards INT-005-1 through INT-010-1. The standards were modified to incorporate the Reliability Coordinator and remove the Reliability Authority as directed by the Standards Authorization Committee. The Drafting team also modified the Coordinate Interchange Reference Document to reflect to incorporate the Reliability Coordinator and remove the Reliability Authority.

### **Next Steps**

The team is planning to finalize the changes and develop a comment form in a phone conference in the middle of August. All the standards and the reference document will be posted for comment on September 1<sup>st</sup>. This is the second draft of the Coordinate Interchange Standard.

**Agenda 11.c.**  
**NERC Reports**  
Planning Standards Task Force Report

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**Agenda 11.d.**  
**NERC Reports**  
Resources Subcommittee

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**Agenda 11.e.**  
**NERC Reports**  
Transmission Subcommittee

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**Agenda 11.f.**  
**NERC Reports**  
Resource Issues Subcommittee

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**Agenda 11.g.**  
**NERC Reports**  
CCC Update

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## Compliance and Certification Committee Action Items List

| <b>Task ID</b> | <b>Action Item</b>                                                                                                                                                               | <b>Assigned to</b>                                         | <b>Date Due</b> | <b>Status</b>                 |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------|-------------------------------|
| 6-1            | Send Chicago Board of Trade "rule" format samples to CCC members                                                                                                                 | Marty Sidor and David Cook                                 | 6/29/2005       |                               |
| 6-2            | Begin development of new penalty and sanction matrix based on CCC meeting discussion                                                                                             | Enforcement, Sanctions, and Disclosure Subcommittee (ESDS) | 7/15/2005       | <b>IN PROGRESS</b>            |
| 6-3            | Develop a process to classify the sanctions and penalties from the new ESDS matrix to reliability standards                                                                      | Compliance Policy and Procedures Subcommittee (CPPS)       | 10/1/2005       |                               |
| 6-4            | Develop penalty application guidelines for use when assigning violation classifications to reliability standards.                                                                | ESDS                                                       | 10/1/2005       |                               |
| 6-5            | Send out draft process for reporting violations to the CCC for approval. Schedule a conference call for the vote.                                                                | Marty Sidor                                                | 7/10/2005       | <b>AWAITING DRAFTING TEAM</b> |
| 6-6            | Present the issues associated with appeals after posting in the Disclosure guidelines to the board in the CCC report at the August meeting                                       | Bob Harbour                                                | 7/15/2005       |                               |
| 6-7            | Send comments on the 2006 Business Plan supporting documents to Dave Hilt. After changes, Staff will send to CCC for approval in a motion crafted by Jerry Smith and Marty Sidor | All CCC members                                            | 6/29/2005       | <b>IN PROGRESS</b>            |
| 6-8            | Consider public release of Regional CEP audits (subsequent to appeal)                                                                                                            | CPPS                                                       | 6/22/2005       | <b>IN PROGRESS</b>            |
| 6-9            | Adjust the 2006 meeting dates and select cities for June and December                                                                                                            | Marty Sidor                                                | 7/15/2005       | <b>IN PROGRESS</b>            |
| 6-10           | Create comments for the Organization Certification Standards and send to CCC for comment and approval for submission                                                             | Marty Sidor                                                | 6/28/2005       | <b>IN PROGRESS</b>            |

## Appeals Process

Submit 2 plans to the board

## Violation Risk Assessment

This needs to be something simple. Take what we have and massage it a bit to give them what they want

- CC Comments
- Refine Parameters
  - From white paper, Relative Rank of Impact of Violation due to time of Occurrence, this will not be considered
- Link to Penalty/Sanction Matrix
  - Ranking the standards
  - Assigning a risk factor
  - Mathematical relationship of factors
    - Len Januzik has a program that MIGHT be able to help determine what the probability that a physical violation might cause cascading. It might also give an idea of how an entity might effect the bulk electric system. – A down the road idea
  - a) **Relative Rank of Reliability Standard (RRS)**  
put together a small group to re-rank the standards, document the meeting and send it as a white paper
  - b) **Relative Rank of Impact of Violation due to Time of Occurrence (RIVTO) Will not be discussed**
  - c) **Level of Non- Compliance (LNC)**  
A and C will combine to form one number that will be used to determine the seriousness of a particular violation in general, without regard to entity or circumstances
  - d) **Probability for Causing Cascading Outages (PCCO)**  
Should this be included in the overall calculation, or pulled out separately?
  - e) **Overall Relative Ranking of Violations (ORRV)**

## Penalty/Sanction Matrix

ACTION ITEMS

1. Stanley will put together a small group to re-rank the standards, document the meeting and send it as a white paper
2. Ed Ruck and Gerald Steffens are to look at PCCO and how it should be used in the overall ranking evaluate the vulnerability assessment tool
3. Dave Dworzak will pose a question regarding the mathematics of the violation risk assessment
4. Ed Ruck will send out an email to create a list for ESDS
5. ALL – July 15 ESDS Progress report from everybody
6. Stanley will draft a second version of the overall violation risk assessment white paper

**Agenda 11.h.**  
**NERC Reports**  
NERC Drafting Team Members for MRO Region

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**Agenda 12.**  
**Review 2005 Activities List**

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## Standards Committee 2005 Activities List

| Activities for 2005:                                                                                                                                                                                                                                                                                                                                                                     | Status:                                                                                                                                                                                                                                                                   | Assigned To: |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| The primary activity of the SC in 2005 will be to develop Organization Standards. The SC has started this process by identifying all of the requirements of the Version 0 Standards that pertain to the Regional Reliability Organization.                                                                                                                                               | The SAR for the initial set of MRO Standards has been approved. A SDT has been formed and has started the process of drafting a set of MRO standards to be used in the 2006 compliance program. Standards are currently posted for comments.                              | Ben D & ADT  |
| The SC will work with the MRO Compliance Office to establish administration procedures for certification of functional organizations once NERC certification standards are approved.                                                                                                                                                                                                     | The initial registration procedure has been completed. The certification procedures will be developed once the NERC standards on certification are adopted by the NERC Board of Trustees. Standards are currently being drafted. MRO has commented on the draft versions. | Al Boesch    |
| The SC is working with staff to start Ballot Body registration and arrange to use the NERC posting, commenting and voting mechanism for Organization Standards.                                                                                                                                                                                                                          | The Balloting software is in operation and being utilized. Development continues on the balloting portion and testing is expected to start by mid-August.                                                                                                                 | Ben D        |
| The SC is determining what procedures are required by the NERC standards and assigning them to the appropriate MRO committees.                                                                                                                                                                                                                                                           | The initial identification of required procedures has been completed. Procedures are being identified and ownership is being assigned to the standing committees.                                                                                                         | Larry L      |
| The SC is reviewing the Standards Process Manual to determine if modifications should be recommended.                                                                                                                                                                                                                                                                                    | The review has started and changes to the NERC Standards Process Manual are being monitored. SAR has been written and accepted by the SC. The Drafting Team will be recommended to the SC on 08/25/05                                                                     | Tim N        |
| Develop a Regional Handbook Standards Section                                                                                                                                                                                                                                                                                                                                            | Compile standards section of the Regional Handbook                                                                                                                                                                                                                        | Ben D        |
| <b>Completed Tasks</b>                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                           |              |
| The SC is preparing a cross-reference table to be used with the MRO transition standards once the NERC Version 0 standards are in force. This is needed because the MAPP specific standards that become the transition standards are written to be consistent with the current NERC standards. The format and function names have been significantly changed in the Version 0 Standards. | This is complete and the table is posted on MRO website.                                                                                                                                                                                                                  |              |
| The SC will make a recommendation to the Board concerning the adoption of the NERC Version 0 Standards as organization Standards.                                                                                                                                                                                                                                                        | The Board has adopted the NERC Version 0 Standards as MRO Standards at the recommendation of the SC.                                                                                                                                                                      |              |

**Agenda 13.**  
**Other Business**

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**Agenda 13.a**  
**Other Business**  
Preliminary Budget Discussion

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**Agenda 14.**  
**Next Meeting**

November 10, 2005 – St. Paul Conference Center – 10:00am

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**Agenda 15.**  
**Adjourn**

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