



**FINAL MEETING MINUTES**  
**MIDWEST RELIABILITY ORGANIZATION**  
**Reliability Assessment Committee**  
Holiday Inn Select, Bloomington, MN  
June 9, 2010 - 8:30 am

**1. Call to Order**

Chair Mazur called the meeting to order at 8:30am.

**2. Determination of Quorum**

Chair Mazur asked for introductions from the committee members and guests.  
Chair Mazur determined that a quorum was present at 8:33am.

The following RAC members, guests and staff were present:

**Members:**

Hoa Nguyen, MDU  
Ron Mazur, Chair, MH  
Dennis Florum, LES  
Hamish Wong, WPS  
Dale Burmester, ATC

Jay Porter, GRE  
Dave Rudolph, BEPC (phone)  
Gerry Steffens, RPU

**Guests:**

Alan Burbach, LES (phone)  
Amr Eldamaty, SPC (phone)  
Dave Duebner, MISO  
Terry Harbour, MEC (phone)

Dan Lenihan, OPPD (phone)  
Tim Owens, NPPD (phone)  
Jon Iverson, OPPD (phone)

**Staff:**

John Seidel  
Salva Andiappan  
Jennifer Matz  
Dan Schoenecker

**Members Absent:**

Kavita Maini, WIEG  
Gayle Nansel, WAPA  
Mike Wish, GSE



### 3. Standards of Conduct and Anti-Trust Guidelines

Mr. Seidel reviewed the Standards of Conduct and Anti-Trust Guidelines with the meeting attendees.

### 4. Consent Agenda

a. Approve Meeting Minutes from March 10, 2010 Meeting

*Upon motion duly made by Mr. Steffens and seconded by Mr. Nguyen, the Reliability Assessment Committee approved the March 10, 2010 RAC meeting minutes as written.*

### 5. Chairman's Report - Ron Mazur

Chair Mazur briefly discussed the highlights from the last MRO Board meeting. The Board approved the charter for creation of the MRO Operating Committee, appointed MRO Corporate officers for another year, and approved the appointment of Kerry Kaseman, Otter Tail Power Company, as the MRO representative on the NERC Load Forecasting Working Group. Chair Mazur also highlighted that the focus for MRO staff in 2010 is to improve reliability through education and providing the industry with lessons learned on event analysis, compliance audits and enforcement actions.

### 6. Reliability Assessment Committee 2010 Membership

a. 2010 Membership

- i. MRO Transmission Assessment Subcommittee (TAS) – New Member
  - Vote to appoint Patrick Shanahan from American Transmission Company (ATC) as new member.

Chair Mazur asked for a motion to appoint Mr. Patrick Shanahan, of ATC, as the new member of the MRO TAS.

*Upon motion duly made by Mr. Burmester and seconded by Mr. Steffens, the Reliability Assessment Committee approved Mr. Patrick Shanahan as a new member of the MRO Transmission Assessment Subcommittee.*

- ii. NERC Transmission Issues Subcommittee (TIS) and the Eastern Interconnection Reliability Assessment Group Steering Committee (ERAG) – New MRO Representative
  - Replacement for Wenchun Zhu

Chair Mazur asked the committee about the status of volunteers to represent MRO on the NERC TIS and ERAG Steering Committee. Since, no volunteers have come forward; he requested MRO staff to send a notice to the membership requesting a nomination for the NERC TIS and another nomination for the ERAG Steering Committee.

***Action: Ms. Matz will send out an email to the membership requesting nominations for volunteers to serve on the NERC TIS and ERAG.***

## 7. MRO Reliability Assessment Group Activities – Update

### a. MRO and SPP Coordination of Nebraska Companies

Mr. Seidel provided the committee with an update on the coordination agreement between MRO and SPP. It is possible that the NERC seasonal and long term assessments for 2011 will be submitted on an RTO and Planning Authority basis. The Nebraska companies would at this point submit their assessment data to the SPP RTO and the SPP Regional Entity would then submit the SPP RTO data to NERC (including Nebraska's data). Assuming this occurs, the Nebraska companies' model building and assessment data would be submitted to and coordinated through the SPP RTO and SPP Regional Entity.

### b. Existing UFLS Program – Excel Engineering's Report and Recommendations

Mr. Seidel briefly summarized the recent UFLS program issues, and the reason for involving Excel Engineering. He referred the committee to agenda item 7.b. containing the presentation on Excel Engineering's review of MRO's UFLS program. Excel Engineering's review identifies MRO's UFLS program to be adequate and not a reliability concern. This report and other supporting documents will be submitted to NERC and regulatory staff. Mr. Seidel also reminded the committee that NERC has a drafting team re-writing the fill-in-the-blank standard PRC-006, which addresses UFLS programs. If the new standard were approved, the responsible entity for implementing UFLS programs would shift from the Regional Entity to the Planning Coordinator.

### c. SPS Survey Results

Mr. Seidel referred the committee to the report for agenda item 7.c which contained the outcome of the SPS survey. He commented that no new SPSs were reported.

### d. SPS Definition and Criteria

A detailed discussion occurred regarding the proposed SPS guideline contained in agenda item 7.d. Mr. Seidel explained that SPS guidelines are necessary to help Registered Entities understand what constitutes an SPS and what is expected to be reviewed by the MRO SPS Review Team and ultimately included in the MRO SPS inventory. It was suggested that MRO request comments from stakeholders, which would then be considered to finalize a SPS guideline document for the region. Chair Mazur agreed, and requested that the proposed SPS guideline document be posted for comments.

**Action: Ms. Matz will send out an email to the membership requesting comments on the draft SPS guideline.**

**The committee recessed for a break at 10:36 am.**

**The committee reconvened at 10:52 am.**

### e. August 29 Event Update

Mr. Seidel informed the committee that the August 29 Event Final Report is complete. He reviewed the key changes to the report, and the recommendations developed from the analysis of the event. He stated that MRO would like to have the RAC's endorsement of this report before presenting it to the Board on June 24, 2010. Chair Mazur requested Mr. Seidel send the report via email to the RAC members to review and request their vote for endorsement.

**Action: Mr. Seidel will send the August 29 Event Final Report to the RAC members requesting their vote for endorsement by June 18, 2010.**

## 8. Review RAC (new Planning Committee) Structure, Subcommittees, and Responsibilities of new Operating Committee

Mr. Schoenecker reviewed the revision process of MRO's Policy and Procedure 3 to incorporate the new Operating Committee, and suggested the RAC provide any comments they may have to the Board. The committee reviewed the Operating Committee charter, and agreed to a couple of revisions.

The committee stressed concern about only having one member from each sector on the new committee. Mr. Schoenecker explained that MRO chose to start with one member from each sector, due to the concern of not having enough people to participate. He further stated that if the RAC feels differently, they should provide comments to the Board.

Chair Mazur proposed that the RAC review the charters and work plans of all subcommittees reporting to the RAC to determine if any revisions need to be made. He asked that all chairs from the subcommittees provide a copy of the work plans for the RAC to review at the next meeting.

**Action: John Seidel to request all chairs of subcommittees to supply their charters and work plans to Mr. Seidel and Ms. Matz for the RAC to review at the next meeting.**

Mr. Nguyen offered to be the Planning Committee (PC) Liaison to participate on the Operating Committee. Chair Mazur asked for a motion to appoint Mr. Nguyen as the PC liaison.

**Upon motion duly made by Mr. Steffens and seconded by Mr. Burmester, the Reliability Assessment Committee approved Mr. Nguyen to be the Planning Committee Liaison for the Operating Committee.**

**The committee recessed for lunch at 12:11 pm.**

**The committee reconvened at 1:00 pm.**

## 9. NERC Assessments

### a. Coordination of Transmission Reliability Studies in the Long Term Reliability Assessment Future of TRAWG

A discussion occurred on the status of the MAPP TRAWG for 2011. Many Transmission Owners throughout the MRO region demonstrate meeting TPL-001 through TPL-004 requirements through the TRAWG Studies. Mr. Steffens stated that the MAPP TRAWG may provide these services in the future as an optional contract and not as an obligation to the MAPP RTC members. Mr. Steffens stated that the proposal should be ready soon and it will be discussed with the previous TRAWG study members.

### b. Update on NERC Reliability Assessments

- 2009-2010 Winter post-seasonal (new)

Mr. Seidel referred the committee to the report provided in the Agenda Packet under agenda item 9.b. He discussed the difficulties that occurred for NERC staff to collect information on a Reliability Coordinator footprint basis. For the MRO region, which has three Reliability Coordinators registered, the Midwest ISO submitted their data and narrative directly to NERC staff as did the SPP Reliability Coordinator (for the Nebraska companies). MRO collected data and narrative from the SaskPower



Reliability Coordinator and submitted it to NERC. The full NERC 2009-2010 Winter look back report should be finalized sometime later this summer.

c. Regional Boundaries for Future NERC Assessments

Mr. Seidel stated that he made a presentation to the NERC Planning Committee in March 2010 to propose how NERC assessments could be improved by reporting on an RTO and Planning Coordinator basis. The proposal suggested that this occur for 2011 assessments. The proposal was well received by the NERC PC. The Regional Managers will discuss this proposal in the near future. The goal is to have this proposal fully accepted by all Regional Entities, the NERC RAS and the NERC PC by fall of 2010.

d. NERC 2010 Scenario Assessments

Chair Mazur stated to the committee that he is unaware of any new update from the NERC Planning Committee on either of the assessments. In addition, Mr. Nguyen also informed that there was nothing new from the NERC Reliability Assessment Subcommittee as well. The proposed scenarios include:

- Early Retirement of Steam Units
- Rapid Demand Growth Following Recession

**10. Midwest ISO Updates**

Mr. Duebner provided highlights on Midwest ISO's Reliability Analysis, Long-Term Resource Assessment, Congested Flowgate Study, current target studies, and the work completed with the Eastern Interconnection Planning Collaborative. Please refer to agenda item 10 of the Agenda Packet for Mr. Duebner's full report.

**11. Compliance Committee Activity**

Mr. Eldamaty updated the committee on the key items discussed at the Compliance Committee meeting held on June 8. He informed that the Mid Continent Compliance Forum (MCCF) meeting and the MRO workshop held in May both had an increase in attendance, and the CDMS tool is scheduled for production at the end of June 2010. In addition, he also commented on the status of MRO measuring their progress with the strategic initiatives, and the 2010 Annual Plan Implementation. The next committee meeting is being held on September 7, 2010.

**12. Standards Committee Activity**

Mr. Steffens informed that the Standards Committee is changing their focus in order to be in line with MRO's re-alignment of efforts in 2010. The Standards Committee members will be responsible for updating and requesting comments from their sector on items occurring within the Standards Committee. The goal is to try to help educate entities more, and create a more effective line of communication to improve sector participation.

**13. Subcommittee and Task Force Reports**

a. Generator Testing Review Task Force (GTRTF)

The Task Force has nothing new to report.



b. Model Building Subcommittee (MBS)

Mr. Burbach referred the committee to his report in the Agenda Packet to identify the highlights of the subcommittee's recent activities. He informed the need for RAC approval to replace Srinivas Vermuri with Jason Espeseth on the MBS. Chair Mazur asked the committee for a motion to approve.

*Upon motion duly made by Mr. Burmester and seconded by Mr. Steffens, the Reliability Assessment Committee approved Mr. Jason Espeseth to replace Mr. Srinivas Verimuri on the Model Building Subcommittee.*

c. Protective Relay Subcommittee (PRS)

Mr. Bhan emailed his report to the committee following the PRS meeting held June 7 – 8, 2010. His report discussed the need for the RAC to review and approve the charters of the SPS Review Team and the Mis-Ops Review Team, and the PRS efforts working on the technical paper on Out of Step protection. Chair Mazur suggested the PRS prepare an outline for the next RAC meeting for the committee to review and approve.

i. Subcommittee report

ii. Special Protection Systems Review Team

d. Resource Assessment Subcommittee (RAS)

The RAS has nothing new to report.

e. Scenario Assessment Task Force (SATF)

No report provided.

f. Transmission Assessment Subcommittee (TAS)

Chair Mazur informed the committee to refer to agenda item 13.f. for Mr. Torgerson's update.

**14. Eastern Interconnection Reliability Assessment Group Reports**

a. ERAG Management Committee

The ERAG Management Committee has nothing new to report.

b. Multiregional Modeling Working Group (MMWG)

Ms. Matz handed the written MMWG report out to the committee to review.

*Ms. Matz will attach the written report to the meeting minutes.*



## 15. NERC Reports

Due to a time constraint, Chair Mazur asked the committee for questions on the NERC reports provided in the Agenda Packet. Since, no questions were raised the committee proceeded to agenda item 16.

a. Data Coordination Working Group (DCWG)

No report provided.

b. Demand Response Data Task Force (DRDTF)

The NERC DRDTF meeting for May 26<sup>th</sup> was cancelled; therefore, there is nothing new to report.

c. Load Forecasting Working Group (LFWG)

Mr. Jackson's report is included in the Agenda Packet under item 15.c.

d. Operating Committee (OC)

Mr. Larson's report is included in the Agenda Packet under item 15.d.

e. Operations Review Subcommittee (ORS)

Mr. Sanders emailed his report to the committee the morning of the meeting for the RAC to review.

*Ms. Matz will attach the Mr. Sanders report to the meeting minutes.*

f. Planning Committee (PC)

Mr. Burmester's report is included in the Agenda Packet as agenda item 15.f.

g. Reliability Assessment Subcommittee (RAS)

Mr. Nguyen's report is included in the Agenda Packet as agenda item 15.g.

h. Reliability Metrics Working Group (RMWG)

Ms. Elsenpeter's report is included in the Agenda Packet under agenda item 15.h.

i. Resource Issues Subcommittee (RIS)

No report provided.

j. Resource Subcommittee (RS)

Mr. Bilke's report is included in the Agenda Packet under agenda item 15.j.

k. System Protection and Control Subcommittee (SPCS)

Mr. Quest's report is included in the Agenda Packet under agenda item 15.k.

l. Transmission Issues Subcommittee (TIS)

Mr. Andiappan's report is included in the Agenda Packet under agenda item 15.l.



**16. Other Business**

*a. MRO UFLS Drafting Team – Representation from RAC or Subcommittees*

The committee decided to locate a member from the drafting team to provide an update for the next RAC meeting.

*b. Additional Business Not On Agenda*

*i. Operating Committee 3-Year Staggered Terms*

Ms. Matz informed the committee that the drawing of lots for the Operating Committee's 3-year staggered terms was completed, and the information will be provided to the sectors upon completion of the election of Operating Committee members.

*ii. Guest speaker at Board meeting on June 24, 2010.*

Mr. Schoenecker stated that there would be a guest speaker at the next Board meeting. His name is Ed Schweitzer of Schweitzer Engineering and he will be speaking about the "Overview of Protection Systems and Relays".

**17. 2010 Board and Committee Meeting Dates**

2010 Board of Directors Meeting Dates

June 24  
September 23  
December 2

2010 MRO RAC Meeting Dates

September 8  
November 17

**18. Adjourn**

Having no further business, Mr. Mazur adjourned the meeting at 3:13 pm.

*Upon motion duly made by Mr. Wong and seconded by Mr. Florum, the Reliability Assessment Committee approved to adjourn the meeting.*

# ATTACHMENT A

## ERAG Multi-Regional Modeling Working Group REPORT

Date: June 9<sup>th</sup>, 2010  
To: MRO Reliability Assessment Committee (RAC)  
From: Adam Flink, Kerry Marinan, MRO representatives on MMWG  
Re: Report to RAC on MMWG

The ERAG Multi-Regional Modeling Working Group (MMWG) met most recently in San Antonio, TX, May 6-7, 2010.

### Items of interest:

- The MMWG, in conjunction with Powertech Labs, continues to use and further develop the System Dynamics Database (SDDDB) and Power Flow Database (PFDB) for the development of its dynamic and steady-state models. Currently, Powertech Labs is contracted by the MMWG to perform both dynamic and steady-state model building tasks.
- The MMWG has produced an updated set of power flow compliance checks to be performed on all MMWG models before release. A number of these checks require correction of errors by data submitters before a case can be released as final. This updated set up checks replaces the 'NERC DOCU' IPLAN program that was previously used. MRO is requesting that its data submitters correct all errors in the 2010 MRO model series, according the updated set of checks.
- Powertech has performed dynamics benchmarking on the PSSE v32 vs v30 and the results were identical. It should be noted that a few generators that did not have updated v32 dynamics modeling were ignored and the list of these generators were supplied with a request for updated v32 models so a comprehensive dynamics test can be performed. The MRO members have supplied the requested data as of 5/18/2010.

# ATTACHMENT B

## MIDWEST RELIABILITY ORGANIZATION (MRO) NERC REPRESENTATIVE REPORTING FORM

Date: 06/09/2010

To: MRO - Reliability Assessment Committee (RAC)

From: Steve Sanders

Re: NERC Operating Reliability Subcommittee (ORS) Report

### Meetings/Conference Calls Attended on behalf of MRO/RAC:

1. NERC ORS Meeting (In Person, Entergy Office, New Orleans) on May 5, 2010

### Items Raised (of potential interest to MRO) and Summary of actions taken by ORS:

#### a) NERC Reliability Tools/Compliance Issues - SAR:

ORS noted that the Operating Committee endorsed submitting the SAR – Reference to Reliability Tools in Reliability Standards to the Standards Committee. However, NERC staff responded that, due to high work load and perceived urgency of the SAR, the SAR could not be considered a high priority at this time. NERC might elect to address the issues identified in the SAR by issuing a “compliance bulletin.” The bulletin would address compliance with a requirement when a reliability tool is unavailable.

#### b) Reliability Coordinator Compliance with Reliability Standards:

The ORS reviewed the FERC Order Approving Stipulation and Consent Agreement, issued March 5, 2010, in Docket No. IN08-5-000, and specifically Paragraph 11, which states in part: “Lastly, Enforcement and NERC allege that FRCC violated IRO-003-2 (R1), IRO-003-2 (R2), IRO-005-2 (R5), IRO-005-2 (R13), and TOP-006-1 (R5) because the RC operator was not aware of disabled protection ... and hence the resulting system conditions and therefore permitted the operation of the system in an unknown state.”

The ORS discussed the following:

1. Disabling of Protection Systems – The reliability coordinator (RC) was not informed. The RC should have procedures to address. The ORS will draft and submit a request for interpretation of the relevant reliability standard requirements.
2. RC and Transmission Operator (TOP) System Operators – The ORS observed that in some control rooms the RC and TOP system operators occupy the same chair. Any one entity that has multiple NERC registrations could have jeopardy in this area. The ORS will draft and submit a request for interpretation of the relevant reliability standard requirements.
3. Three-way Communication – The ORS noted that this issue is being addressed in other NERC forums.

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### c) Reliability Standards Reviews, Requests for Interpretation

- i) EOP-001-0: NERC posted the revised interpretation of EOP-001-0 Requirement R1 for the Regional Entity Compliance Managers for a 30-day pre-ballot review from March 16, 2010 to April 15, 2010. NERC conducted the initial ballot from April 15, 2010 through April 26, 2010. The ORS reviewed the comments received. The ORS Executive Committee will draft a response to the comments. The full record of the interpretation of EOP-001-0 is available at [http://www.nerc.com/filez/standards/EOP-001-0\\_Interpretation\\_RECM.html](http://www.nerc.com/filez/standards/EOP-001-0_Interpretation_RECM.html)
- ii) EOP-002-2: (UPDATE) The NERC Board of Trustees addressed the request for interpretation at its February 16, 2010 meeting, however further action related to the interpretation awaits direction from the Standards Committee or NERC staff. The full record of the interpretation of EOP-002-2 is available at [http://www.nerc.com/filez/standards/EOP-002-2\\_Interpretation\\_Brookfield\\_Power\\_2008-07.html](http://www.nerc.com/filez/standards/EOP-002-2_Interpretation_Brookfield_Power_2008-07.html).

### d) Revised Reliability Plans

- i) The ORS Executive Committee reviewed and approved the proposed changes to the Midwest ISO Reliability Plan (dated 5/10/2010) on 6/1/2010 to reflect the transition of the Big Rivers Electric Cooperation (BREC) balancing authority from the TVA reliability area to the Midwest ISO reliability area effective September 1, 2010.
- ii) UPCOMING changes: The ORS has received a revised reliability plan from the SaskPower reliability coordinator, which will be discussed by the ORS at its September 2010 meeting.

### e) Transmission Loading Relief

The ORS Market Flow Task Force provided a status report to ORS of the implementation of the Parallel Flow Visualization project to address several issues in the current IDC network and native load calculation. The IDC working group also reported that they expect to deploy CO-283 on November 1, 2010 for a 12-18 month parallel operation with existing processes. The Task Force also reported that the NAESB Business Practices Subcommittee is working to propose a method to assign Generator-to-Load priorities. The three approaches currently being considered are 1) generator prioritization, 2) flowgate allocation, and 3) tag everything. The ORS noted that some of the equity impacts will not be known until the parallel operation begins.

### f) ACE Diversity Interchange (ADI)

The ORS task force reported that it is working to develop a whitepaper, including recommendations, for presentation to the ORS and the Interchange and Resources subcommittees. The ORS reviewed the proposed outline of the ADI whitepaper.

### g) Other items:

Buy-Through-Congestion: The ORS reviewed a proposal by NYISO to manage transmission constraints using buy-through-congestion (BTC). The proposal allows transactions external to the constrained balancing authority to buy through the congestion, thus, for a congestion fee, the balancing authority would provide the required congestion relief through redispatch of its available resources. The ORS noted that in some markets the redispatched transaction is required to procure related transmission service, thereby, providing a mechanism for determining whether the excluded transaction (and ensuing redispatch) is causing a constraint on another bulk power system facility, and suggested that NAESB should be asked to review

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the BTC proposal as well. The ORS tasked the IDC working group to review the BTC concepts and estimate the IDC enhancements needed, and associated costs to implement the BTC process.

Frequency Response Initiative (FRI): NERC staff summarized activities associated with the FRI, which was initiated in response to concerns related to; 1) declining frequency response in the Eastern Interconnection (see figure included in Appendix 1 below), and 2) withdrawal of primary control frequency response. The FRI objectives are:

- Coordinate all NERC standards development and performance analysis activities related to frequency response and control
- Identify specific frequency-related reliability factors
- Identify root causes of changes in frequency response
- Identify practices and methods to address root causes
- Consider impacts of integration of new generation technologies (such as wind, solar, and significant nuclear expansion)

### **Action or Feedback requested from RAC/MRO:**

1. Provide MRO position, if any, to be forwarded on any reliability standards coming to ORS for review.
2. Provide any comments or MRO position for ORS on the proposed changes to the TLR process (Parallel Flow Visualization).

### **Upcoming Meetings:**

1. September 22-23, 2010, ORS Meeting (Loveland, Hosted by WECC)
2. November 18, 2010 (Austin, hosted by ERCOT)

The NERC ORS minutes/agendas of the recent meetings are available at the following links:

- May 5, 2010 ORS Meeting:  
[http://www.nerc.com/docs/oc/ors/ORS\\_Minutes\\_5May10.pdf](http://www.nerc.com/docs/oc/ors/ORS_Minutes_5May10.pdf)  
<http://www.nerc.com/docs/oc/ors/ORS%20May%202010%20Meeting%20Presentations.zip>
- June 1, 2010 ORS (Executive Committee) Meeting:  
[http://www.nerc.com/docs/oc/ors/ORS\\_Ex\\_%20Comm\\_Conf\\_Call\\_Minutes\\_6-01-10\\_Complete-Pkg.pdf](http://www.nerc.com/docs/oc/ors/ORS_Ex_%20Comm_Conf_Call_Minutes_6-01-10_Complete-Pkg.pdf)

Please let me know if you have any questions, or would like additional information.

Respectfully submitted,

Steve Sanders  
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Upper Great Plains Region  
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Appendix 1

Eastern Interconnection Mean Primary Frequency Response – Projected

