

MEETING AGENDA
MIDWEST RELIABILITY ORGANIZATION
PROTECTIVE RELAY SUBCOMMITTEE

Holiday Inn Downtown – Bloomington, MN

November 27, 2007 – 1:00pm – 5:00pm

November 28, 2007 – 8:00am – 12:00pm

1. **Call to Order** - Deven Bhan
2. **Determination of Quorum** - Andrew Lucero
3. **MRO Standards of Conduct and Anti-Trust Guidelines** - Deven Bhan
4. **Consent Agenda**
 - a. *Approve Minutes of September 24-25, 2007* - Andrew Lucero
 - b. *Agenda Additions (if any)* - Deven Bhan
 - c. *Approve Dede Subakti as Non-Voting Member of PRS* - Deven Bhan
 - d. *Ratify Dede Subakti as Chairman of SPSRT* - Deven Bhan
 - e. *Approve 2008 Meeting Dates – All*
5. **Chairman's report** - Deven Bhan
(Formation of PRS---projected 2008 work load for PRS – Other)
6. **SPS Periodic Review Procedure: Anticipated Workload for 2008** - Dede Subakti
7. **Special Protection Systems**
 - a. *Weston 4 SPS Review Approval* - Dan Jesberg
 - b. *Update on Joint PRS/TAS/MISO SPS Review Team (SPSRT)* - Dan Jesberg
 - c. *SPS Database Review* - Dan Jesberg
 - d. *SPS Redundancy Question: TAS Comments* - Andrew Lucero
8. **Review Latest Drafts on MRO Guidelines for PRC-013** - Ding Lin, Len and **PRC-014** - Yee and Keith Orsted
9. **Status Reports/Updates**
 - a. *BZ3 Compliance* - Andrew Lucero/Don Ravling
 - b. *SPCTF* - Deven Bhan
 - c. *MRO-RAC* - John Siedel
 - i. MRO UFLS Plan
 - ii. September 18 Disturbance
 - d. *Third Quarter Relay Mis-Operations* - Dan Jesberg
 - e. *Review of Revised Mis-Operation Spreadsheet* - Dan Jesberg
 - f. *Review of Mis-Operation Issues Submitted by Ron McIvor/Lewis Ross*
 - g. *Relay MisOp Review Team for 2008* - Deven Bhan
 - h. *Significant Relay Mis-Operations - Technical Discussions – All*
10. **Miscellaneous**
 - a. *Technical Reference Paper on Auto-Reclosing Practices in MRO* - Russ Miller
 - b. *Technical Reference Paper of Thermal Overload of Facilities* - Steve Mittelstead
 - i. Scaling Factors - Protection and Control Issues
 - c. *Other*
11. **Adjourn**

**Agenda 1.
Call to Order**

Agenda 2.
Determination of Quorum

Agenda 3.
MRO Standards of Conduct and Anti-Trust Guidelines

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.



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.



**Agenda 4.
Consent Agenda**

Agenda 4.a.
Consent Agenda

Approve Minutes of September 24-25, 2007

Agenda 4.b.
Consent Agenda
Agenda Additions

Agenda 4.c.
Consent Agenda

Approve Dede Subakti as Non-Voting Member of PRS

Agenda 4.d.
Consent Agenda

Ratify Dede Subakti as Chairman of SPSRT

Agenda 4.e.
Consent Agenda
Approve 2008 Meeting Dates

**Agenda 5.
Chairman's Report**

Agenda 6.
SPS Periodic Review Procedure: Anticipated Work Load for 2008

Agenda 7.
Special Protection Systems

Agenda 7.a.
Special Protection Systems
Weston 4 SPS Review Approval

Agenda 7.b.
Special Protection Systems
Update on Joint PRS/TAS/MISO SPS Review Team

Agenda 7.c.
Special Protection Systems
SPS Database Review

Agenda 7.d.
Special Protection Systems
SPS Redundancy Question: TAS Comments

Agenda 8.
Review Latest Drafts on MRO Guidelines for PRC013 and PRC-014

Agenda 9.
Status Reports / Updates

Agenda 9.a.
Status Reports / Updates
BZ3 Compliance

Agenda 9.b.
Status Reports / Updates
SPCTF

Agenda 9.c.
Status Reports / Updates
MRO-RAC

Agenda 9.c.i.
Status Reports / Updates
MRO-RAC
MRO UFLS Plan

Agenda 9.c.
Status Reports / Updates
MRO-RAC
September 18 Disturbance

Agenda 9.d.
Status Reports / Updates
Third Quarter Relay Mis-Operations

Agenda 9.e.
Status Reports / Updates
Review of Revised Mis-Operation Spreadsheet

Agenda 9.f.
Status Reports / Updates

Review of Mis-Operation Issues Submitted by Ron McIvor/Lewis Ross

The following comments were received from Lewis Ross in regards to relay mis-operations definitions and submission requirements. Ron McIvor's response was sent to Mr. Lewis on behalf of the Mis-operations Review Team.

From Lewis Ross

"...I was preparing to submit a misoperation report to the MRO for the 3rd quarter but after reviewing the MRO "Procedure for Analysis of Misoperation of Transmission and Generation Protection System" document I don't think I have to. The 161 kV line that had the problem is a three terminal line. MPW owns two terminals and MEC owns one terminal. Here is the situation:

1. Because of a blocking carrier being incorrectly sent from MEC's terminal the breakers at each of the terminals were slow to trip. Based on the MRO document, R1.1: "Protection systems which have defined operating speed requirements for the purpose of maintaining system stability, slow operation of the system shall be deemed a misoperation." Since these protection systems do not have defined operating speeds it is not a reportable misoperation. Correct?
2. If it was reportable, MEC would report it, not both of us, since it was their terminal that generated the incorrect blocking carrier. Correct?
3. On our end of the line one of the terminals didn't have all the normal primary targets even though it tripped correctly with the primary relays once the carrier stopped. Based on the MRO document this is not a misoperation. Correct?

Since the above situations are not specifically covered in the MRO "Procedure for Analysis of Misoperation of Transmission and Generation Protection System" document I didn't believe a misoperation report is needed..."

Response from Ron McIvor

"...MRO can require more to be reported than the NERC standards, but not less. One way we have done this is by including breakers as part of the protection system even though NERC does not (or at least they only include the trip coils). Another way is by requiring reporting of any misop "affecting the BES." The NERC wording only requires reporting of misops "affecting the [reliability](#) of the BES."

It appears, however, that we got it backwards in defining misoperations. In the [NERC Glossary of Terms Used in Reliability Standards](#) under "misoperation" the first bullet states: "Any failure of a Protection System element to operate within the specified time when a fault or abnormal condition occurs within a zone of protection." By attempting to clarify "specified time," we have actually narrowed the requirement of what needs to be reported. NERC has apparently chosen to leave the definition of "specified time" open

ended so that it can include any time longer than normally anticipated, not just times relating to system stability.

1. Because the tripping was slower than expected, it should be reported as a misoperation.
2. Both MEC and MPW should report the event, even though the corrective actions may only involve one of the utilities.
3. If this is an electromechanical scheme, I would think that lack of targets would not be reportable as long as proper clearing occurred. However, if it is a microprocessor based relay, lack of targets could indicate that the proper relay elements/logic did not function.”

Agenda 9.g.
Status Reports / Updates
Relay MisOp Review Team for 2008

Agenda 9.h.
Status Reports / Updates
Significant Relay Mis-Operations – Technical Discussions

**Agenda 10.
Miscellaneous**

Agenda 10.a.
Miscellaneous

Technical Reference Paper on Auto-Reclosing Practices in MRO

Agenda 10.b.
Miscellaneous

Technical Reference Paper of Thermal Overload of Facilities

Agenda 10.b.i.
Miscellaneous

Technical Reference Paper of Thermal Overload of Facilities
Scaling Factors – Protection and Control Issues

Agenda 10.c.
Other

**Agenda 11.
Adjourn**
