

APPROVED MINUTES
MIDWEST RELIABILITY ORGANIZATION
Model Building Subcommittee
St. Paul Conference Center
April 18, 2006

1. Welcome – Al Burbach

Chairman Burbach called the meeting of the Midwest Reliability Organization (MRO) Model Building Subcommittee (MBS) to order at 9:10 am.

a. Determination of Quorum

The following members and guests were present:

Members Present:

Alan Burbach, LES Chairman	Larry Brusseau, MRO Secretary
Dave Kempf, GRE	Dale Catherall, ALT
Wayne Haidle, MDU	Dan Custer, MEC
Dustin Betz, NPPD	Gerry Lane, MH
Holli Krizek, WAPA	Wayne Guttormson, SPC
Hamish Wong, WPS	Randy Oye, XEL
	Dan Burns, RTC Liaison (CIPC)

Joined the meeting at 1:00 pm

Loren Mayer, MISO Liaison	Chetty Mamandur, MISO
Joe Smith, MISO	John Lawhorn, MISO at 2pm

Members Absent:

Jay Porter, ATC	Steve Sanders, PAC Liaison (WAPA)
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Guests:

Salva Andiappan, MRO	Babs Moses, MRO
Kerry Marinan, ATC	

b. There were no additions to the agenda.

2. Review Policy and Procedure 4

Chairman Burbach presented the MRO and NERC Committee Membership Policy #4 and the Standards of Conduct and Anti-trust Guidelines.

3. Consent Agenda

a. Approve Minutes from December 13, 2005

Action Item: This was tabled until the afternoon.

b. Approve Minutes from February 28, 2005 Web Conference

The minutes were approved separately from the MRO Needs Document that was attached.

Upon Motion duly made the Model Building Subcommittee approved the February 28, 2006 minutes as amended.

4. Status Report on 2006 Series Models

a. 2006 Schedule Update

Mr. Brusseau updated the subcommittee on the status of the 2006 Series models, and noted that all the changes received to date have been implemented. The Pass 5 models will be posted tomorrow, and final models are expected to be posted by May 5. Mr. Andiappan is working on solutions for modeling one wind-farm, and will be contacting the company data submitter to coordinate the proposed solution.

Action Item: Mr. Andiappan will send Basin Electric Power Company a note with a deadline.

b. ACCC Results

Action Item: The PSS/E Activity ACCC will be run on the MRO footprint with the output broken down by states. The parameters to be used in the ACCC run are as follows: +10% to -10% of the voltage and 100% of the emergency rating. The objective of this ACCC run is to help identify modeling problems such as incorrect branch ratings.

c. Benchmarking Of Series

Action Item: Mr. Brusseau will provide a proposal for benchmarking 2006 series and send it to the subcommittee. Upon Receipt, the subcommittee has a week to review the proposal before the benchmarking begins. The benchmarking of the models will likely be started and completed after the final models are posted.

d. Corn Belt – Modeling of 69kV Facilities

Mr. Custer presented an update regarding the addition of Corn Belt 69kV facilities to the model series. Beginning with the 2006 Series models these 69kV facilities will be included in the power flow models, and removed in two new models (summer and winter) created for LRP and AFC studies.

Action Item: Mr. Brusseau will inform Corn Belt and MISO of the new models to be used in the LRP and AFC studies.

e. Documentation – 12-13-05 Minutes

- i. Add Transaction Data*
- ii. Legal Considerations*
- iii. MBS Member Company Reactions*

Action Item: The MBS by consensus decided that it is permissible to post transaction data with documentation on the website.

f. Wrap-up Summary

- i. The Subcommittee Discussed the Appropriate Cut-off Time for including model changes, and it was decided to incorporate all submitted changes that will not delay the posting of the final models and will not risk corrupting the model accuracy.*
- ii. Model Building Summit Feedback: The comments were positive and it was considered good to set aside time for this. All responses were in favor of the summit, although some responders didn't have time to attend the Summit.*

Action Item: For the fall 2006 MBS agenda, another Summit will be discussed and possibly scheduled.

5. Review Benchmarking Document

Chairman Burbach solicited comments on the draft document. This document will be given to MISO, and become part of the scope of work for the 2007 Series model development.

Action Item: Mr. Brusseau will incorporate comments into the document and approval is expected at the Fall 2006 meeting.

6. Review Contingency File Development - Modification to MBS Charter

Chairman Burbach reported that the MRO-Reliability Assessment Committee indicated the MRO-Transmission Assessment Subcommittee (TAS) would be responsible for creating the MRO contingency files. The subcommittee did discuss running the contingency files on each new model series to identify contingency file errors, and then working with the TAS to fix these errors. The MBS charter needs to be changed since it currently states that the MBS will "Oversee the updating of the MRO contingency files".

Action Item: Chairman Burbach will contact Mr. Dan Belk, chair of TAS, and determine if the TAS wants the MBS to update the contingency file to match each new model series. Chairman Burbach will consult the RAC about changing the MBS charter.

7. Wind Farm Modeling

i. Establish Ad Hoc Task Force

The Reliability Assessment Committee approved the MBS's request to establish a Wind Farm Modeling Ad Hoc Group.

ii. Identify Objectives

Action Item: Mr. Brusseau will create a rough draft of objectives and a letter soliciting members. The MBS will review the objectives including non-disclosure issues via email. Upon electronic review and approval, a request for volunteers will be sent out to the MRO membership.

iii. Set Schedule

Action Item: Mr. Brusseau will create a rough draft schedule.

8. MISO Database process (input, output, views of data)- Randy Oye

Action Item: Agenda Item 8 was moved to afternoon session with MISO.

9. Model list for 2007 Model Series - Identify External Data (Dynamics)

The options available for the external data to be attached to the 2007 Series models was discussed. One option was to attach the external data that best matched the year and season of the MRO model, but not all external data sets have compatible dynamics data. The option selected was to use the 2008 Summer and the 2008 Winter Model Series of the NERC 2006 Series since both these models have compatible dynamics data.

10. Model Acceptance Criteria

A criteria that defines when a model is acceptable to the MRO (i.e., final) must be developed by the subcommittee, and provided to MISO as the model building contractor. The model acceptance criteria may also discuss the expectations regarding the posting of preliminary models.

Action Item: It was concluded that both the MRO Model Building Manual and benchmarking document should define the model acceptance criteria, and both these documents will be provided to MISO.

11. Annual development/review of process (submit to MISO by 8/1/06)

a. Benchmarking Parameters

- i. MBPTF Parameters
- ii. MBWG Model Building Manual
- iii. NERC MMWG Model Building Manual

b. Schedule (scope of work)

- i. 2007 Model Building Effort
 - 1. Transactions
 - 2. Data Submitter Summit
 - 3. TPSC forms 1-3
 - 4. Data Representatives
 - 5. Procedure to collect data with MRO footprint including Northern MAIN Utilities and SPC

Action Item: As the above items are part of the contract, Staff can review these, and if there are missing items, let the MBS know. June 1, 2006 is the target date when the package will be sent to the MBS.

Action Item: The MBS should be receiving monthly project progress reports.

12. Review MRO Model Building Procedural Manual - Approval is expected at the Fall Meeting

13. MRO Procedures – NERC MOD-014 & MOD-015

Mr. Brusseau explained the process involved in the MRO Regional manual. (1) Staff looks first at these two standards for Powerflow and Dynamics for Phase 1. (2) Then they will look at the MAPP and MAIN procedures and see how to combine them. (3) It will then come to MBS for approval.

Action Item: The approval request is expected around May 1, 2006 so the MBS should be watching their emails for comments.

14. Reports

There were no reports.

15. Other Business

MRO will move out of the current building the last week of June to new offices on County Road C and Cleveland. There will be meeting space for 20 people. Larger meetings similar to the RTC would be at a local hotel.

For clarification, the MRO is a committee structure. MAPPCOR is the service organization.

16. Next meeting

- a. RAC May 24, 2006 – St. Paul Conference Center*
- b. RAC August 31, 2006 – TBD*
- c. RAC November 3, 2006 – TBD*
- d. Next meeting for MBS will be held near the same date as the MISO training meeting.*

17. Adjourn to Afternoon Joint Meeting

Meeting adjourned at 12:13pm and will reconvene for the afternoon session after lunch.

Draft Minutes
MIDWEST RELIABILITY ORGANIZATION
Model Building Subcommittee Joint Meeting with MISO
St. Paul Conference Center
April 18, 2006 – 1:00 PM

1. Reconvention the MBS

Chairman Burbach reconvened the meeting of the Midwest Reliability Organization (MRO) Model Building Subcommittee (MBS) at 1:00 pm. A quorum was present.

Approve Minutes from December 13, 2005

Upon Motion duly made the Model Building Subcommittee approved the December 13, 2005 minutes as amended.

2. MISO Presentation

a. General Overall Status Report

Mr. Loren Mayer introduced Mr. Chetty Mamandur and Mr. Joe Smith of MISO.

Mr. Mamandur and Mr. Smith presented details of the proposed Model on Demand (MOD) database. Their presentation was distributed to the MBS via the email exploder. An overview of the MOD database was presented, followed by an example that showed how a fictitious network upgrade would be implemented. Several possible formats for Project files were reviewed; these files are similar to PSS/E RDCH formats and are used to implement topology changes to the models. Load and Generation profiles were reviewed, and several questions were asked regarding the details of using these profiles. Rating profiles were also reviewed.

b. MRO 2007 Series Models

Mr. Mamandur covered two options for building the 2007 Series models. First, the MOD database would be used to build 16 models based on using the 16 models from the 2006 Series. This approach is very similar to the existing approach except that the database is used to submit changes to the models. For example, the 2006 Summer model would be used to build the 2007 Summer model. The second approach is to use the 2006 Summer Peak model as the base data model, and then build the future models using the Project files and profiles discussed above. This approach would be similar to the process used in future years with a more mature database. The subcommittee expressed a strong desire to use the latter approach to building the MRO 2007 Series models.

c. Project Schedule

- Current version of MOD 5.2.0.2 Installed (limited functionalities)
- Next version of MOD to be received around May 15 (basic functionalities)
- New version of MOD to be received around August 15 (required functionalities)
- FAT and SAT around September 15
- User Training in October
- MOD in Production in October/November 2006

Discussion Questions

Concerns expressed by the MBS include:

Concern: MRO, MISO, NERC all have different requirements. How can they solve these differences between these requirements?

Response: MISO has not resolved how to integrate these complex issues into the models it builds for the first 6 months. MISO builds its planning models with 3 month increments. Whereas, the MRO is requesting 6 month models including Winter, Summer, Off-Peak. NERC has Fall and Spring with Summer Peak and Winter Peak. NERC requires seasonal maintenance. MISO recommends that it is best to submit each project with an in-service date based on a 3 month increment. This approach would allow the flexibility to build both the MISO and MRO models.

Concern: Ratings are an issue. Are immediate, feedback results available for model changes?

Response: There is an availability to test a project in the MISO MOD system. A Data Submitter could build a project on his own space and test it without making it official. Then apply and confirm it for MISO approval. *NOTE:* No one else has access to the information until it is accepted and submitted. It stays on your own workspace.

Concern: Is there an issue with bus numbers from more than one company?

Response: This type of data issue will be handled by the audit data checks under development.

Concern: What about the Schedule?

Response: See slide 27 – Project Schedule: IT is ready today but it is still cumbersome. It should be ready by middle of May. By mid-summer the database will produce really good models. By end of August, verification will be available.

Concern: What about a needs Document as is available in XCap? What about added functionality to store wave ratings?

Response: This is not available as the tool doesn't have all the characteristics XCap. It is a problem to work out. Added functionality to store wave ratings? Storing wave trap rating and labeling is important. This would be a next phase.

Mr. Smith presented a demonstration of the web application and VPN version.

3. Adjourn

Meeting adjourned at 5pm.

Prepared by:

Babs Moses, MRO

Administrative Assistant

Reviewed and submitted by:

Larry Brusseau, Secretary

MRO Model Building Subcommittee