

AGENDA
MIDWEST RELIABILITY ORGANIZATION
Generator Testing Review Task Force
Roseville Office - December 13, 2006 – 9:00 AM – 3:00 PM

1. **Roll Call and Introductions** – Chairman Dave Kral / Secretary Andrew Lucero
2. **Review Policy and Procedure 4**
3. **Consent Agenda**
 - Approve Meeting Minutes from November 29 & 30, 2006 Meeting
4. **Update from NERC Phase III-IV Field Testing Group Conference Call -**
5. **Review of MRO Generator Testing Guideline Sections already**
 - As needed a Quick review of MOD-024 and 025
 - Quick review of (MOD-026)
 - Discuss MOD-027: Review new changes.
 - Discuss PRC-019: Review new changes
6. **Draft requirements for PRC-024 (Frequency & Voltage Excursions)**
 - Development and discuss PRC-024:
7. **Other Business**
 - Testing Requirements
 - Data Reporting Format
8. **Next Meeting**
9. **Adjourn**

DRAFT MINUTES
MIDWEST RELIABILITY ORGANIZATION
Generator Testing Review Task Force

Roseville Office - November 29 & 30, 2006 – 8:30 AM – 4:30 PM

1. **Roll Call and Introductions** – Chairman Dave Kral / Secretary Andrew Lucero
Chairman Kral called the meeting of the Generator Testing Review Task Force (GTRTF) to order at 8:40 am. The GTRTF is currently classified as an ad hoc group and expected to be active for a year or two.

- a. *Determination of Quorum*

The following members, guests, and staff were present:

Members:

Dave Kral, XEL, Chairman

Brian Archer, MH

Andrew Lucero, MRO, Secretary

Omar Elabbady, MRO, Alternate Secretary

Wendell Thompson, MPW

John Ratajczyk, ATC (Via Phone)

Members Not Present:

Leonard Rentmeester, WPS, Vice Chairman

Guests:

Steve Sanders, WAPA, MAPP NMORWG
(Via Phone)

Barry Francis, BEPC, MRO UFLS
(Via Phone)

2. **Review Policy and Procedure 4**
Chairman Kral presented the MRO Policy and Procedure #4 and the Standards of Conduct and Anti-trust Guidelines.
3. **Consent Agenda**
 - a. *Approve Meeting Minutes from November 2, 2006*
Upon motion duly made by Mr. Archer and seconded by Mr. Ratajczyk, the Generator Testing Review Task Force unanimously approved the minutes of the November 2, 2006 meeting.
4. **Review of NERC Timeline Expectations for Field Testing**
Chairman Kral sent out a note regarding the NERC conference call on November 10, 2006. WECC has no low voltage ride through provision and they feel that they are in compliance. ERCOT is still working on their standards and did not provide us a draft.

Secretary Lucero sent out an email to Hoa Nguyen, RAC Chairman, regarding submittal of the MRO's documentation on MOD-024 and MOD-025 to NERC prior to, or on, January 1, 2007. Mr. Nguyen contacted Secretary Lucero and stated that providing NERC with the draft documents to meet the NERC deadline was fine, as long as NERC recognizes the documents don't have RAC approval and that it will be subject to change at the RAC February meeting.

5. Draft of MRO Generator Testing Guideline Section on Reactive Capability Testing

- The group agreed with the addition of a “Controlling Document” subsection to each test requirement section.
- Quick review of Exemption Criteria, using absence of a generator model in the load flow or stability modeling database in lieu of setting an MVA level.
 - The group discussion revealed that the technical model contains all units regardless of size, and therefore, for testing purposes, the criteria that was decided on previously (exemption of field testing for units smaller than 10MVA) is the best direction for the GTRTF to take.
 - The group also noted that there is a waiver request form and when a waiver is requested it should be submitted to the MRO RAC for approval.
- Quick review of MOD-024 and MOD-025
 - Chairman Kral quickly reviewed MOD-024 and MOD-025 which go into effect January 1, 2007
- Discuss MOD-026: Completion of the section on Excitation System testing including:
 - Criteria for acceptable disturbance monitoring records for response verification.
 - Possibly requiring a Baseline test for all units including all listed NERC tests with a subset of the tests used for periodic verification testing.
 - Discussed the use of generation factory model test data validation.

Action Item: *Chairman Kral will draft a set of baseline tests and verification tests prior to the next meeting.*

- Discuss MOD-027: Drafting of the Frequency Response testing section (many changes will be reflected in the redrafted MOD-027 document).
 - (Appendix C in old GTWG document).
 - The same exemption criteria will be used for this section as in the previous sections.

Action Item: *Chairman Kral will draft a document based on WECC criteria regarding Frequency Response Verification*

- Criteria:
 - Frequency change of .05 Hz to constitute an eligible event
 - Minimum of 20 samples per second sampling rate
 - Record length of at least of 20 seconds

The GTRTF recessed at 10:35am.

The GTRTF reconvened at 10:50am.

- Discuss PRC-019: Drafting of the Coordination of Voltage Controls with Protection and Unit Capabilities (many changes will be reflected in the redrafted PRC-019 document).
 - Same exemption criteria as is used in MOD's-024, 025, 026 and 027.
 - Wording to be added to the document stating that if significant changes/upgrades are made to the unit, then the unit needs to be retested.
 - In regards to the requirements section of the standard:
 - **R2.1.3.** MW limit of the prime mover (GTRTF decided Nameplate to be an acceptable measure of this).

- **R2.1.5** Add the reactive capability curve

- Discuss PRC-024

Action Item: Secretary Lucero to call in to the NMORWG meeting, and send an email prior to the conference call including an attachment to the group regarding the voltage/frequency excursion concerns of the GTRTF.

Action Item: Secretary Lucero will attempt to get Steve Sanders and Berry Francis (UFLSTF Chair) to call into the GTRTF meeting on November 30, the second day of our meeting to answer the group's questions directly.

Action Item: Secretary Lucero to follow up with Deven Bhan (PRTF Chair) and NERC staff, regarding the coordination of the GTRTF and the PRTF related to UFLS.

The GTRTF recessed for the day at 3:40pm.

The GTRTF reconvened at 8:40am on November 30, 2006.

Secretary Lucero contacted both Steve Sanders and Berry Francis and discussed the GTRTF needs with each. They both agreed to attend the 11-30-06 GTRTF Meeting via conference call and address their questions.

- The meeting started with some introductions by Secretary Lucero and an explanation of the GTRTF issue regarding voltage and frequency excursions to Steve Sanders attending by phone. Steve explained that the last studies were done for the June 1998 disturbance which did set some standards which were not completely approved, but were implemented. The next NMORWG meeting is set for Wednesday, December 6, 2006 from 10am to 5pm. Chairman Kral and Secretary Lucero will attempt to call in, if there are further questions.

Action Item: Secretary Lucero will send a copy of PRC-024 to Steve Sanders (NMOGWG Chair) at WAPA.

- Secretary Lucero made the same introductions of and to Barry Francis and the GTRTF needs. Barry explained the UFLS needs based on the graphs that had been e-mailed to the GTRTF and answered all the question of the group to allow for coordination of the system generator and the under frequency load shedding. Once approved, Barry will forward the final standards to the GTRTF.
 - IEEE c37.106 cited during call as being a good guide for power plant operations during abnormal conditions. One issue which was further discussed was the today's CT's are actually more sensitive than most coal units.

Action Item: Secretary Lucero to follow up with Deven Bhan (PRTF Chair) and NERC staff, regarding the coordination of the GTRTF and the PRTF related to UFLS.

- In regards to the requirements of the standard:
 - R3. GTRTF decided on not having an exemption criteria by size for this standard
 - R2.2 The MRO/RAC must make sure there is coordination between the generator protection and transmission protection systems.

Action Item: Chairman Kral will put a section about this in the Responsibilities section of the Generator Testing Document Draft.

- Maybe the GTRTF should have a document in the Generator Testing Handbook which resembles a sample memorandum of understanding between the Generator Owner and Transmission Owner acknowledging that they have coordinated their protection systems with each other to cover the requirement in the standard (more to follow).

The GTRTF recessed at 11:30am.

The GTRTF reconvened at 12:05pm.

- Group reviewed Chairman Kral update to section 5.1, 2, and 3 of PRC-019, which were all agreed to.
- Testing Requirements
Action Item: Chairman Kral and/or Secretary Lucero to contact Mike Connolly (mike.connolly@centerpointenergy.com) regarding criteria potentially applied to all generators in the ERCOT Region based on a presentation given at the FERC Reliability Conference in March of 2005.
- Data Reporting Format

6. Next Meeting

- December 13, 2006, 8:30 am to 5:00 pm at the MRO Offices in Roseville, Minnesota
- January 25, 2007 10:00 am to 12:00 pm, Conference Call

7. Adjourn

Having no further business, Chairman Kral adjourned the meeting of the Generator Testing Review Task Force at 1:57pm.