

**Southwest Power Pool**  
**SYSTEM PROTECTION AND CONTROL WORKING GROUP**  
**MEETING**

**August 20-21, 2014**  
**Westin Dallas Fort Worth Airport**

**August 20 (1pm – 5pm)**

**August 21 (8am – 12pm)**

**• M I N U T E S •**

**Agenda Item 1: Administrative Items**

SPCWG Meeting

**Item 1a: Call to Order and Introductions**

Chair, Rick Gurley (AEP), called the meeting to order at 1pm and welcomed everyone. There were 12 in-person participants and 13 teleconference participants. (Attendance List Below).

Webex	Louis Guidry (Cleco)
Webex	Brent Carr (AECC)
Webex	Bret Burford (AEP)
Webex	Tom Miller (ITC)
Webex	Allen Halling (KCPL)
Webex	Iynn Schroeder (Westar)
Webex	Tom Burns [SPP]
Webex	J.Fultz (GRDA)
Webex	Nikki Dacus (WFEC)
Webex	Kevin Perry (SPP RE)
Webex	Vince V - SPRM
Webex	Akshaya Moharana (Power Tech Labs)
Webex	Mike Hughes (SPP RE)
In Person	Rick Gurley (AEP)
In Person	Bud Averill (GRDA)
In Person	Doug Bowman (SPP)
In Person	Tom Miller (ITC)
In Person	Jonathan Hayes (SPP)
In Person	Ken Zellefrow (Springfield Utilities)
In Person	Forest Brock (Western Farmers)
In Person	Jeff Beasley (GRDA)
In Person	Shawn Jacobs
In Person	Matthew Thykkuttathil (Sunflower)
In Person	Steve Wadds (NPPD)
In Person	Heidt Melson (SPS)

### **Item 1b: Proxies**

There were no proxies for this meeting.

### **Item 1c: Approve minutes of previous meetings (Action Item)**

The minutes for the February, 2014 meeting were reviewed and unanimously approved by the group.

### **Item 1d: Approve agenda**

Rick Gurley (AEP) presented the agenda for review and asked for any additions or corrections. An additional sub-item was added for discussion of misoperations by Louis Guidry under Misoperations Analysis and Whitepaper item 6. The agenda was then unanimously approved.

### **Agenda Item 2: Review of Past Action Items**

Doug Bowman (SPP) reviewed and updated the status of action items through # 32.

### **Agenda Item3: NERC SPCS Update**

Lynn Schroeder reviewed her notes from the SPCS concerning unit aux transformer protection and the relay loadability standard. Does it make sense to have the relays set at 150%? Is it needed on both the high and low voltage sides of the transformer? The SPCS research teams will be researching this. Lynn also discussed the Protection System Response to Power Swings. Documents and reference material have been assembled for development of the standard. This will only apply to those events going forward. Elements susceptible to swings will need to be identified. The 754 data was also discussed.

### **Agenda Item 4: Short Circuit Models**

Doug Bowman provided a presentation on short circuit data benchmarking. The presentation compared actual short circuit values with those calculated in the model. Commentary was requested. Comments given included variable ground impedance due to weather conditions, using current to find discrepancies with generator models, voltages at the point of the fault after the fault, and both ends of a line looking at fault impedance. The new MOD 033-1 standard will require a process to analyze events with real data.

Rick presented statistics to the group that said that AEP was missing some 80% of the zero sequence data in the cases. Doug asked if it was happening in the conversion to aspen. Rick will check on it.

Bud suggested an ad-hoc committee to discuss and ensure the short circuit models are correct. Another suggestion was to get a few representatives of SPCWG get on the MDWG agenda to discuss the issues related to missing zero sequence model data. Bud volunteered to attend. The next meeting is November 12 in Little Rock. The next model build will be completed by the end of this year.

Doug requested continued submittal of actual fault data for continued analysis.

### **Agenda Item 5: Under Frequency Plan and Study Update**

Jonathan Hayes provided a status update of the UFLS Study. The study will be complete by September 30. Tom Burns noted that data request will be sent out October 1, 2014 with a 30 day turnaround. Trueshare can be used for sending out the data. It was also noted that the group would like to view preliminary results of the study before published.

### **Agenda Item 6: Misoperations Analysis and whitepaper**

Rick Gurley summarized how the whitepaper turned out. It was completed and presented at the July MOPC meeting. The RCWG had some questions near completion about the content, specifically, to have the recommendations removed. A larger, fall compliance workshop will be in OKC and Rick Gurley will present the paper at that venue.

Louis Guidry suggested we begin examining additional trends in misoperations going forward. He also had a concern about making sure the misop data is correct before it goes to NERC. Once the members submit misoperations data to the RE, is there time for another SPCWG review before it gets sent to NERC. Mike Hughes noted the request and will begin working on how to do this.

Shaun Jacobs also suggested a template for inserting subcauses so that it can be sent in with the normal misoperation data. After a lengthy discussion, it was decided that it's best not add more granularity to what's already required at this time, but should continue to be looked at.

### **Agenda Item 7: Misoperations Report –Q1 2014**

Mike Hughes presented data that includes Q1 2014. Louis Guidry inquired whether the misoperation data is updated for any particular quarter after the fact since the investigation may not be completed at the time the data is presented. Also would there be value in normalizing the values for miles of line? Mike replied that he could check into it. Howard Google with NERC has collected data for about 4 years that has been placed in a useful graphical format and has been shared with the various groups. Mike recommended that it be included in the next meeting and he will get the presentation for us for the next meeting. Normalization of the last slide may also beneficial to show percentage of total.

### **Agenda Item 8: GMD Presentation**

Doug Bowman presented on Geomagnetic Storms and the new TPL-007 standard under construction.

### **Agenda Item 9: NERC CIPv5 Update**

Kevin Perry talked about CIP 5 and how it relates to protection systems. Only control center BCS are high impacting and a majority of relays in SPP region will be low impacting. New definitions were discussed such as BES Cyber System, BES Cyber Asset, and Protected Cyber Asset, and Transmission Facility were discussed. Medium and low impact rating criteria was

outlined. Shaun Jacobs inquired about how wind farms would be classified and weighted on the discussed transfer-trip issue. Kevin will look into the issue and assist those impacted.

#### **Agenda Item 10: Criteria Update**

Jonathan Hayes and Louis Guidry talked about the criteria's information on ARL. There are no standards which deal directly with ARL Maintenance and Testing. In the process of collecting PRC-006 ARL data, SPP found no Entities with ARLs. EOP-005, R6 is the only document to talk about ARL Maintenance and Testing. Removing ARL from the criteria was discussed since no one in SPP has it. Bud Averill made a motion to move Criteria section 7.6.5, which deals with Maintenance and Testing of Automatic Restoration of Load, to a business practice. Bud's motion was not seconded. Louis Guidry made a motion to remove it completely from the criteria. Louis' motion was seconded by Heidt Melson and passed on a verbal vote.

Louis Guidry made another motion to remove Criteria Section 7.7.1, with the understanding that entities will reference existing and pending PRC standards which cover the review of components and systems that make up generator protection systems. Bud Averill seconded the motion. The motion passed on verbal vote.

Louis Guidry made another motion to remove Criteria Sections 7.8.6 and 7.8.6.1, which deal with governor control and reporting procedures, with the understanding that entities will reference existing and pending MOD, BAL, and VAR-002 standards. Ken Zellefrow seconded the motion. The motion passed on verbal vote.

#### **Agenda Item 11: Discussion of Future Meetings**

The next meeting will be November 5,6, 2014. Rick and Doug will put together a tentative list for 2015 meeting dates.

#### **Agenda Item 12: Chair Rotation (this agenda item inserted)**

Bud Averill is scheduled to rotate into the chair position in 2015, however, he may be retiring at the end of 2015, cutting short the normal 2 year assignment by 1 year. Discussion ensued about whether the group wanted someone else since Bud would be available for only 1 year. It was decided by the group that Bud's 1 year assignment would be acceptable and he could serve out the second year if he does not retire in 2015.

#### **Agenda Item 13: Review of Action Items and Closing Remarks**

Doug Bowman review the captured action items 33-41.

Respectfully Submitted,

**Douglas Bowman**  
SPCWG Staff Secretary