

# Meeting Notes

## Project 2013-03 Geomagnetic Disturbance Standard Drafting Team

May 11, 2016 | 8:00 a.m. - 10:00 a.m. Eastern

Web Meeting

### Administrative

#### 1. Introductions

The meeting was brought to order by the Chair at 8:00 a.m. Eastern on Wednesday, May 11, 2016.

Participants were:

Name	Company	Member/ Observer
Frank Koza	PJM Interconnection	Member (chair)
Donald Atkinson	Georgia Transmission Corporation	Member
Kenneth Fleischer	Fleischer Consultants	Member
Antti Pulkkinen	NASA GSFC	Member
Emanuel Bernabeu	PJM Interconnection	Member
Luis Marti	Hydro One Networks	Member
Qun Qiu	AEP	Member
Randy Horton	EPRI	Observer
Mark Olson	NERC	Observer
Lauren Perotti	NERC	Observer
David Bertagnolli	ISO NE	Observer
Joseph McClung	JEA	Observer
Justin Kelly	FERC	Observer

Name	Company	Member/ Observer
Kal Ayoub	FERC	Observer
Larisa Loyferman	Centerpoint	Observer
Mary Agnes Nimis	FERC	Observer
Michael Juricek	Oncor	Observer
Patti Metro	NRECA	Observer
Ralph Painter	TECO	Observer
Robert Russo	PSEG	Observer
Ryan Yokley	Sunflower Electric	Observer
Steven Black	FRCC	Observer
William Harris	Foundation for Resilient Societies	Observer
Tom McElhinney	JEA	Observer

**2. Determination of Quorum**

The rule for NERC Standard Drafting Team (SDT or team) states that a quorum requires two-thirds of the voting members of the SDT. Quorum was achieved as all members were present.

**3. NERC Antitrust Compliance Guidelines and Public Announcement**

NERC Antitrust Compliance Guidelines and public announcement were reviewed by Mark Olson. There were no questions raised.

**Agenda**

**1. Introduction**

- a. Mark Olson outlined the meeting purpose. Participants will review a corrected Figure 1 for the *Screening Criterion for Transformer Thermal Impact Assessment* white paper (*Screening Criterion* white paper) and related text for the project white papers. When the SDT agrees on revisions, NERC will post the revised white papers for stakeholder comments. NERC intends to file revised white papers in the proposed TPL-007-1 docket to maintain accuracy of the record.

## **2. Discussion of *Screening Criterion* white paper Figure 1**

- a. Luis Marti provided background on the *Screening Criterion* white paper. He discussed the thermal simulations used to develop figure 1 and explained the plotting error. In the posted *Screening Criterion* white paper, the x-axis is a vectorial sum of GIC\_E and GIC\_N. The correct way to plot the results of the thermal simulations is to plot peak hot-spot temperature (y-axis) against the peak value of GIC(t) on the x-axis. This has the effect of shifting the envelope to the left such that a peak GIC(t) of 75 A per phase produces peak hot-spot heating of up to 172 degrees Celsius. The SDT analyzed thermal simulations and agreed that potential hot-spot heating from 75 A per phase peak GIC(t) from the benchmark GMD event is well below IEEE C57.91 standard limits and is a conservative screening criterion.
- b. William Harris asked if the latitude scaling factor (alpha) used in proposed TPL-007-1 plays a part in the figure 1 thermal assessment simulations. Luis Marti responded that the simulations of develop figure 1 are independent of the scaling factors.

## **3. Review proposed revision to *Screening Criterion* white paper**

- a. The SDT reviewed and accepted proposed changes to incorporate the corrected Figure 1 and related text. The SDT agreed to rename the models in the figure 1 description for clarity.

## **4. Review related revisions to *Benchmark GMD Event* and *Transformer Thermal Assessment* white papers**

- a. The SDT reviewed proposed changes related to the white papers as a result of the correction to the *Screening Criterion* white paper.
- b. David Bertagnolli recommended revising the *Transformer Thermal Assessment* white paper to incorporate the recently-approved IEEE guide C57.163 (Establishing Power Transformer Capability while under Geomagnetic Disturbances). The SDT did not support expanding the scope of revisions to incorporate new material.
- c. The SDT accepted changes to the white papers related to the corrections in the *Screening Criterion* white paper.

## **5. Next Steps**

- a. Mark Olson stated that NERC would post the revised white papers for a 30-day comment period within a week. A subsequent meeting will be arranged for the SDT to review comments.

## **6. Adjourn**

The meeting adjourned at 8:50 a.m. Eastern on May 11, 2016.