

Meeting Notes Project 2013-03 (Geomagnetic Disturbance) Standard Drafting Team

December 3, 2014 | 8:30 a.m. – 11:30 a.m. EST

December 4, 2014 | 1:00 p.m. – 3:00 p.m. EST

Conference Call and Web Meeting

Dial-in: 1.866.740.1260 | Access code: 6251541 | Security code: 0071

Administrative

1. Introductions

The chair called the meeting to order at 8:30 a.m. EST. Participants were:

Members			
Name	Company	Name	Company
Frank Koza, Chair	PJM Interconnection	Randy Horton, Vice Chair	Southern Company
Donald Atkinson	Georgia Transmission Corporation	Emanuel Bernabeu	Dominion Resource Services, Inc
Kenneth Fleischer	NextEra Energy	Luis Marti (Dec 4 only)	Hydro One Networks
Antti Pulkkinen	NASA GSFC	Qun Qiu	AEP
Mark Olson	Standards Developer		

Observers			
Name	Company	Name	Company
Regis Binder (Dec 4 Only)	FERC	Don Fallon	PSE&G
Ken Donohoo (Dec 3 only)	Oncor	Ed Dobrowolski	NERC
Stacey Tyrewala	NERC	Mike Gandolfo	FERC
Mary Agnes Nimis	FERC	Steve Shelemy	Manitoba Hydro
Justin Lane	PSEG		

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.

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. Participant conduct policy was reviewed.

Agenda

1. **Chair Introductory Remarks.** Frank Koza reviewed the agenda.
2. Ballot results were reviewed at this link: http://www.nerc.com/pa/Stand/Project201303GeomagneticDisturbanceMitigation/Project_2013-03_GMD_TPL-007-1_AB_Results_11242014.PDF
3. **Comment Review.** The SDT reviewed all comments from the formal comment period. The SDT did not support making substantive changes to the draft standard or supporting material. Comment responses were drafted for each comment received.
 - a. The SDT supported changes to the rationale box for R5 to clarify that use of Table 1 in the Transformer Thermal Impact Assessment white paper was an acceptable approach for conducting a transformer thermal assessment.
 - b. The SDT discussed feedback from some NAGF members to expand Table 1 of the Transformer Thermal Impact Assessment white paper to include long-duration heating results. The SDT reasoned that the short-term emergency loading criteria are the more limiting factor and consequently the more limiting value. For this reason the SDT did not support the commenter's suggestion for an expanded table.

- c. The SDT considered changes to the VRF for R2 but rejected them on the basis of the NERC guidelines.
 - d. Alternate transformer screening criterion suggested by some commenters was rejected because there was a lack of supporting technical data. Criticism of the proposed 75 A per phase criterion on the basis of tertiary windings was considered. The SDT did not agree with assertions that tertiary windings were the limiting thermal issue. Luis Marti was assigned responsibility for drafting a comment response.
 - e. A recommendation for adding technical guidance for underground pipe-type transmission cables was discussed and a change to the applications guidelines section of the standard was drafted to address the concern.
 - f. Suggestions for performing a cost analysis were considered. The SDT does not believe useful additional information from throughout the BPS can be obtained until after the standard is implemented and utilities have begun conducting assessments.
 - g. The SDT discussed suggestions for including explicit modeling data needs in the standard to support development of a regional model. The SDT did not agree with the commenter's assertion that a wide area regional model was the only way to accurately model the system. The SDT believes the proposed requirements as written are suitable, and that the additional technical details provided in the GIC Application Guide are appropriate.
 - h. The SDT supported a commenter's suggestion for adding the confidentiality language to R5 rationale box.
 - i. The SDT considered suggested changes to the implementation plan and sequencing of requirements. Majority of commenters do not appear to share the commenter's view so a revision was not developed.
 - j. A suggestion for creating an explicit requirement or subpart to integrate the thermal assessment into the GMD Vulnerability Assessment was not accepted. The SDT agreed the requirements provide for the necessary information exchange as written.
 - k. The SDT reviewed ground model concerns from a Florida entity. Specific requests for clarification on technical details were referred to USGS. The SDT agreed that the justification for the FL1 model was supported in a manner that was consistent with the other models referenced in the standard.
 - l. Comments on the benchmark GMD event were discussed. The SDT maintains that the approach described in the white paper is valid and disagreed with assertions of a systematic bias in the plane-wave method of calculating geoelectric fields.
4. **Review of TPL-007-1 draft 4 and supporting material.** The SDT agreed to proposed drafts containing these revisions:
- TPL-007-1
- Requirement R1: corrected VRF terminology from "Low" to "Lower."

- Requirement R6: revised Part 6.4 to clarify that the thermal assessments must be performed within 24 calendar months of receipt of GIC flow information specified in Requirement R5, Part 5.1.
- Corresponding change was made to the VSL for Requirement R6.
- Rationale boxes and the application guidelines section were revised for clarity.
- Punctuation and grammatical changes were made throughout the standard.

Screening Criterion for Transformer Thermal Impact Assessment White Paper:

- added clarification on page 3 to indicate that the stated temperature refers to full load bulk oil temperature.
 - Corrected table numbering and the example on page 8.
5. The SDT agreed to forward the posting package to NERC staff for quality review and subsequent posting for final ballot. Final review and approval of the Consideration of Comments document would be conducted by email.
 6. The chair adjourned the web meeting at 3:05 pm December 4.