

Meeting Minutes

WG 824: Series Capacitor Working Group of the Transmission and Distribution Committee Orlando, Florida January 11-12, 2010

Date: January 11-12, 2010

Place: Disney Contemporary Resort, Orlando, Florida

1. Introduction

The meeting was called to order by Mark McVey, acting chair. The following people were in attendance:

Name	Company
Bill Chai	GE Energy
K. S. Chan	Bechtel
Bruce English	GE Energy
Luther Holloman	Dominion
Ron Hotchkiss	IEEE
Mike Hulse	Bonneville Power Administration
Lauri Latipaa	Areva T&D
Per Lindberg	ABB
Dan Luke	Cooper Power
Tom McDermott	Meltran
Mark McVey	Dominion
Craig O'Meally	Florida Power and Light
Jeff Peggs	Dominion
Vittal Rebbapragada	Pacific Gas & Electric
Mark Reynolds	Power Engineers
Richard Sevigny	Hydro Quebec
Lisa Vovan	Hydro Quebec

2. Previous Meeting Minutes

The minutes from the July 2009 meeting in Calgary were reviewed and approved.

3. Additional Agenda Items

Reminder of website hosting for the series capacitor working group
(<http://grouper.ieee.org/groups/td/cap/seriescap/>).

4. Draft Guide for the Specification of Fixed Series Capacitor Banks for Transmission Systems

Review of homework assignments from July 2009 meeting.

8.3, Watts loss evaluation, Mark McVey to seek advice from Steve Hensley, to cut & paste general advice from IEEE 824 Annex A.2.

8.4, Reliability and availability, discussed a paragraph added by Mark McVey. Discussion on main spec versus Annex B language and how to split it up.

9.5, Insulation coordination, need to clean up some of the tables.

9.5.2, Creepage distance, example in Appendix B could help clear up the sqrt(3) issue.

9.5.3, Air clearance, replace Figure 4 with equation to save space. Bruce English will look for equation from IEC 60071-2, Annex G.

9.8, External bypass disconnect switch, discussed paragraph added by Mark McVey. Added some specification language.

9.9.1, Current transformers, discussed paragraph added by Mark McVey. Added a note on hybrid (optical/conventional) CT's.

9.6, Discharge current limiting and damping equipment, discussed contribution from Lauri Latipaa.

9.10, Platforms, support structures, seismic design requirements, discussed paragraph added by Mark McVey.

11, System and equipment studies, Bruce English will attempt a first draft at this section.

12, Tests and quality assurance, Mark McVey will reorganize and come up with a list of tests that might be performed on a series capacitor project.

18, Technical fill in data, Lisa Vovan will provide a starting point table-format to pare down later.

17, Site services, Mark McVey will add something from spec language he uses.

16, Balance of plant, discussed what needed to be included and where the best places for these things must be, such as SCADA interfaces, cyber security considerations, IEC 61850 communications, external controls and indications, etc.

B.1.1.1, Mark Reynolds agreed to find an example of a voltage profile for a transmission line.

Deleted B.5.5.2, does not serve a non-redundant purpose.

B.6.3, Triggered bypass gaps, Per Lindberg agreed to provide this section.

Remove redundancies between B.6.5 and 9.5, Insulation coordination.

Mark McVey will attempt to coordinate B.10 and 13, Safety.

Removed B.13, B.14, and B.15 because no guidance for drafting these sections comes to mind, and also much of it is covered by scope of work section.

Removed Appendix E, Impact of series capacitors on line overvoltages and secondary arc extinction, because no volunteers came forward to write it. Left for a future revision if someone gets the desire to write it.

Removed Appendix G, Impact of line harmonics on the design and protection of FSC banks, for the same reason as removing E.

5. Old Business

6. New Business

Summer meeting scheduled July 2010 in Minneapolis, Minnesota.

7. Meeting Adjourned

*Respectfully submitted,
Bruce English
January 12, 2010*