Meeting Minutes
Capacitor Subcommittee
of the Transmission and Distribution Committee
Detroit, Michigan
July 27, 2011

I. Introduction

The meeting was called to order by Tom Grebe

Introduction of attendees

The following people were in attendance:

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Member/Guest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tom Grebe</td>
<td>Electrotek</td>
<td>Chairman</td>
</tr>
<tr>
<td>Richard Sevigny</td>
<td>Hydro Quebec</td>
<td>Vice Chairman</td>
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<tr>
<td>Mike Hulse</td>
<td>Bonneville Power Administration</td>
<td>Secretary</td>
</tr>
<tr>
<td>Roy Alexander</td>
<td>PP&amp;L</td>
<td>Member</td>
</tr>
<tr>
<td>Bill Chai</td>
<td>GE - CPQP</td>
<td>Member</td>
</tr>
<tr>
<td>Halim Malaj</td>
<td>Con Edison</td>
<td>Guest</td>
</tr>
<tr>
<td>D. Joe Meisner</td>
<td>AEP</td>
<td>Member</td>
</tr>
<tr>
<td>John Harder</td>
<td>Independent Consultant</td>
<td>Member</td>
</tr>
<tr>
<td>Jeff Peggs</td>
<td>Dominion Virginia Power</td>
<td>Guest</td>
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<tr>
<td>Bob Sier</td>
<td>American Transmission Co</td>
<td>Guest</td>
</tr>
<tr>
<td>Dan Luke</td>
<td>Cooper Power Industries</td>
<td>Member</td>
</tr>
<tr>
<td>Roy Alexander</td>
<td>RWA Engineering LLC</td>
<td>Member</td>
</tr>
<tr>
<td>Richard Morin</td>
<td>Hydro-Quebec Research Institute</td>
<td>Guest</td>
</tr>
<tr>
<td>Bharat Bhargava</td>
<td>Electric Power Group</td>
<td>Member</td>
</tr>
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Attendance was followed by a presentation by Richard Morin (See New Business)

II. Previous Meeting Minutes

The minutes from the January 2011 Atlanta meeting were approved as submitted.

III. Membership Review

Currently there are 31 members,
- The member list has been broken into 2 categories (active and observer)
- The membership list can be found at: http://grouper.ieee.org/groups/td/cap/

This subcommittee is open to new members and Guests.

The following people were retired from the Capacitor Subcommittee Membership List:
The following people were added to the Capacitor Subcommittee Membership List:

- Joe Meisner of AEP has been added to the membership list

IV. Chairman’s Report

The website has been updated with:
- Membership
- Officers
- meeting schedule
- IEEE links
- WG Status

Please send in any items you would like posted

Website Address:   http://grouper.ieee.org/groups/td/cap/

V. Liaison Reports

A. NEMA – B. Chai

The participants were planning on May 2011 meeting, but it has been rescheduled for middle of September.

Agenda to be determined but will include:
- Bar Coding
- Fuse Testing

B. IEC, CIGRE – B. Chai

IEC –
- One meeting this year with a proposal to have 871-1 include the performance test that is going to be part of the IEEE STD 18
- USA to host 2012 meeting in Washington DC September of 2012
  - Open Invitation (Last US hosting event was 1996)
CIGRE –
  - No meeting this year (Only even number years)

C. C37.116 –
Mark McVey was not in attendance. But in the Series Capacitor meeting it was summarized that:
  - The language in Section 8.5 is still being developed with the coordination of IEEE SPD

VI. Working Group Reports

A. W.G. on Capacitor Technical Papers – Tom Grebe
   Capacitor Replacement Papers reviewed
   No PES letters papers
   - 4 Transaction papers
   - 1 Revised / Resubmit
   - 1 reject
   - 1 accept
   - 1 still outstanding

Anyone that would like to review papers, submit your name and email to Tom Grebe so he can add you to the list. Open to anyone.

B. W.G. on Capacitor Bibliography – Richard Sevigny
Richard submitted a revised Bibliography; however the submission appears to be controversial due to the concern that a reference may be erroneous. The decision to omit the reference may me voted on pending the feedback of an email asking for opinions.

C. W.G. on Shunt Capacitor Banks (Std. 18) – Tom
The Group met and dealt with final comments on Draft 10. A balloting Group will be formed and Balloting will begin (additional comments should be submitted through Balloting process)

D. W.G. on Standard for Series Capacitors –
None

Complete
Website will be updated to guide on IEEE website
The next iteration will be a revision not an affirmation of the existing document.
F. W.G. on Reactor Applications for Capacitor Switching Technologies - Roy Alexander
Meeting on 7-25-11
Tiered paper structure was discussed, but because no page limit exist, the exact format has not yet been nailed down. The prestrike arc shockwave section may not be in the main document. A revised outline is coming
Focus will be on transient limiting reactors
“Switching Technologies” will be removed from the title

VII. Old Business
None.

VIII. New Business

• Presentation by Richard Morin / Including lab capabilities (Slide show on Cap Website)
  “Tests on Full Scale Power Capacitors using Parallel Resonant Power Supply”
  • Parallel Resonant Test Apparatus
  • Tests on Full Scale Capacitors
  • Aging Processes
  • Switchgear Restriking Effects

• 1036 application guide working group will be created
  Chair Needed
  Contributors Needed
  Time slot will be reserved for discussion during the next meeting.

• Tom Grebe presented an Idea for Mark McVey
  Possibility for new WG for standard or guide for DC filter bank for Geo-Magnetic disturbances
  Capacitor Subcommittee has the correct blend of expertise to tackle this and Mark McVey is willing to Chair this WG.

IX. Future Meetings
  July 24-29, 2011 Detroit, MI (current meeting)
  January 8-12, 2012 Anaheim, CA (JTCM)
  July 22-27, 2012 San Diego, CA (GM)
  January 2013 TBD (JCTM)
  July 21-25, 2013 Vancouver, BC (GM)

Minutes submitted by Mike Hulse