

IEEE Power Quality Subcommittee Meeting Minutes

January 7, 2008

San Antonio, TX

The meeting was opened at 1:00 pm on January 7, 2008 in the Frio Room of the San Antonio Hyatt Regency. The Power Quality Subcommittee website is

<http://grouper.ieee.org/groups/td/pq>

Introductions

Chair: Mark Halpin

Vice-Chair: Dan Sabin

Secretary: Tim Unruh

Previous Meeting Minutes

A motion was made to approve the minutes by Randy Collins. A second to approve the minutes was made by Erich Gunther. The motion carried.

Power Quality Subcommittee Membership

The membership list was presented and reviewed. It was noted that the membership list was sent out on Friday, January 5, 2008 to all committee members. The list contains guest as well as member listings. At the time of the meeting, the list contained 16 members, out of a total roster of 40.

Organization Chart Review

The organization chart for the Power Quality Subcommittee was reviewed by the group. A copy of the updated chart is attached to these minutes. Changes made to the chart include: Removal of the Embedded Solutions and Equipment Susceptibility under the Power Quality Solutions Working Group.

Meeting Attendance Issue

Mark Halpin discussed the overall meeting attendance at our various power quality meetings. Attendance has dropped, and getting acknowledgement from chairs of needed meetings at this Winter Technical meeting were challenging. Mark requested that chairs work to identify new attendees at their meetings, and to work to get them involved by asking them to participate. He stressed that often we get new interest, but tend to shut them out by not inviting them to participate.

Reports from Top Level Chairs

The following provided a brief overview of their current activities:

Monitoring Electric Power – Randy Collins

Harmonics – Bill Moncrief

Voltage Quality – Dennis Hansen

ICHQP Exec Committee – Mark Halpin provided for Paulo Ribiero

PQ Solutions – Dave Mueller

PQ Activities – Tim Unruh provided for Wilsun Xu

At the end of these reports, Mark Halpin provided an overview of the difference between SCC 22 Power Quality Standards Coordinating Committee and the Power Quality

Subcommittee. He emphasized that the PQ Subcommittee was more towards developing standards, while the SCC22 group was more focused on coordination of the various power quality related standards.

Panel Sessions Update

Dennis Hansen reviewed the Power Quality panel sessions that were planned for future meetings. A copy of the panel sessions is attached to the minutes.

Meeting Schedule Update

The meeting schedule was discussed. During the meeting, each working group chair provided input regarding their need for a meeting at the general meeting in Pittsburgh, PA.

Next Meeting

The next meeting of the subcommittee will be with the IEEE/PES General meeting in Pittsburgh, PA, July 20-24, 2008. It is anticipated that the Power Quality Subcommittee will be held on Wednesday of that week. The proposed schedule is attached to the minutes.

At the end of the meeting, Mark Halpin gave a presentation about the changing nature of the industry application society color book series. The presentation is attached as part of the minutes.

Attendees

The following persons attended the meeting on January 7, 2008.

Bingham, Richard
Brogan, John
Collins, Randy
Cryer, Curtis
Ehrlich, Russ
Gunther, Erich
Hallmark, Daryl
Halpin, Mark
Hansen, Dennis
Henville, Charles
Lowenstein, Michael
McEachern, Alex
Moncrief, Bill
Mueller, David
Phillips, Dean
Sabin, Dan
Saenz, Ramon
Safi, Mahmoud
Saint, Bob
Sedziol, Ken
Simard, Georges
Swearingen, Michael
Unruh, Timothy
Waclawiak, Marek
Williams, Charles



IEEE PES T&D Power Quality Subcommittee Panel Session and Tutorial Plan

Last revised: 4 Jan 2008

This revision includes the re-formed 519 misapplications panel for SM 2008 and the withdrawal of the PQ Data panel from PSCE 2009.

Panels at a Glance

Priority	Upcoming Meetings														
	T&D 2008 Apr 21-24 Chicago			SM 2008 Jul 20-24 Pittsburgh			PSCE 2009 Mar 15-18 Seattle			SM 2009 Jul 26-30 Calgary					
	Num	Designator	Stat	Num	Designator	Stat	Num	Designator	Stat	Num	Designator	Stat	Num	Designator	Stat
A	3	<i>1159</i>	Conf	10	<i>EAF Model</i>	<i>Chr</i>				T1	Flicker Tut	Chr			
B	4	<i>PQ Sol'ns</i>	Conf	1	<i>519 MisApp</i>	<i>Chr</i>				12	Measure HV	Prel			
C	5	<i>Prevention</i>	Conf	2	<i>Interharm</i>	<i>Chr</i>									
D				XX	XXXXXX	XX				XX	XXXXXX	XX			

Status Codes	Prel	Preliminary idea; no chair yet found.	<i>Italics</i>	PQ Subcom. has approved panel.	Conf	TCPC has confirmed panel.
	Chr	Chair found and agreed to organize.	Sub	Panel has been submitted to TCPC.	Schd	Room and time have been scheduled .

Panel and Tutorial Descriptions and Ideas with Chairs

(Numbers correspond to those in the table above.)

- | | |
|--|---|
| 1. Common errors and misconceptions in the application of IEEE 519 | Chair – Paulo Ribeiro |
| 2. Interharmonics Case Studies and TD = THD + TID | Chair—Erich Gunther |
| 3. Monitoring and Characterization of Power Quality 1159 & 1159.1 . | Co-chairs Charles Perry & Randy Collins |
| 4. PQ Solutions – both Supply-side and Utilization-side. | Chair – Dave Mueller & Dan Sabin |
| 5. Preventing Electrical Pollution from Entering the Power System. | Chair – Dennis Hansen |

For questions or comments about this plan contact Dennis Hansen

dennis.hansen@pacificorp.com
801-220-4816



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|--|-------------------------|
| 6. The Economics of PQ —tie in to political-legal? | Chair—Mark McGranaghan? |
| 7. Integration of Monitoring Data | Chair—Mark McGranaghan? |
| 8. Experience with PQ Indices . | Chair—Rao Thallam |
| 9. PQ in Data Centers | Chair—Mike Lowenstein |
| 10. Measurement Techniques and Modeling Issues
of Electric Arc Furnaces | Chair—Gary Chang |
| 11. PQ Considerations for Applying Capacitors in Substations | Chair—Erich Gunther |
| 12. Measuring Harmonics on HV and EHV Systems | Chair—Randy Horton? |
| 13. Advanced Applications for PQ Monitoring | Chair—Dan Sabin |
| 14. Flicker and harmonics measurement issues and experience | Chair—? |
| 15. Cost of Flicker | Chair—Reuben Burch |

Tutorials

- | | |
|--|--------------------|
| T1. Understanding IEEE 1453 Flicker | Chair—Reuben Burch |
|--|--------------------|

Power Quality Subcommittee Meetings

July 20-24, 2008, Pittsburgh, PA

Meeting Name	Day	Time	Chair	Chair E-Mail
International Conference on Harmonics and Quality of Power (ICHQP) Executive Committee	Monday	1:00 PM to 2:00 PM	Yahia Baghzouz	eebaq@egr.unlv.edu
TF on Transfer of Power Quality Data (1159.3)	Monday	1:00 PM to 2:00 PM	Erich Gunther	erich@enernex.com
Stray Voltage Holding Spot (scheduled by others)	Monday	2:00 PM to 5:00 PM	Chuck DeNardo	chuck.denardo@we-energies.com
WG on Monitoring Electric Power Quality (1159)	Tuesday	8:00 to 10:00 AM	Randy Collins	randy.collins@ces.clemson.edu
Voltage Quality WG (1250)	Tuesday	10:00 AM to 12:00 PM	Dennis Hansen	Dennis.Hansen@Pacifcorp.com
Power Quality Activities WG (lunch mtg, no room needed)	Tuesday	12:00 PM to 1:00 PM	Wilsun Xu	wxu@ece.ualberta.ca
TF on Voltage Sag Indices (1564)	Tuesday	1:00 PM to 2:00 PM	Dan Sabin	d.sabin@ieee.org
TF on Flicker (1453)	Tuesday	2:00 PM to 3:00 PM	Reuben Burch	rfburch@southernco.com
Power Quality Solutions WG (1409 and 1346)	Tuesday	3:00 PM to 5:00 PM	Dave Mueller	dave@electrotek.com
Intelligent Grid Holding Spot (scheduled by others)	Wednesday	8:00 AM to 10:00 AM	Erich Gunther	erich@enernex.com
Harmonics WG	Wednesday	10:00 AM to 12:00 PM	Bill Moncrief	bmoncrief@ieee.org
Harmonic Control on Power System TF (519)	Wednesday	1:00 PM to 2:00 PM	Mark Halpin	halpism@auburn.edu
PQ Interest Group	Wednesday	2:00 PM to 3:00 PM	Bill Moncrief	bmoncrief@ieee.org
Power Quality Subcommittee Meeting	Wednesday	3:00 PM to 4:00 PM	Tom Gentile	thomas.gentile@us.ngrid.com
SCC22 Power Quality Standards Coordination Committee	Wednesday	4:00 PM to 5:00 PM	Bill Moncrief	bmoncrief@ieee.org

Color Book Re-Engineering Project

Carey J. Cook
S&C Electric Company
Chicago, IL

Organizational Structure

- Technical Books Coordinating Committee
 - Coordinates new WGs formed along technical content lines (8 in total)
 - General Material (Base Book) WG
 - Power System Design WG
 - Power Systems Analysis WG
 - Power Systems Grounding WG
 - Protection and Coordination WG
 - Emergency/Stand-By Power Systems WG
 - Power Systems Reliability WG
 - Maintenance, Operations, and Safety WG

Organizational Structure

- Order of the following material is important
 - Numbering system for the “dot” standards
- Status
 - New structure has been accepted
 - PARS to be submitted shortly
 - Revision work to begin immediately
- Deadline
 - Revise material and conduct ballots: 2008-2009
 - Complete project: 2010

General Material (Base Book) Editorial WG

- **Chair: Dave Mills**
- **E-Mail Address: (d.mills@ieee.org)**
- **# of Topical Areas (dot standards): 1**
 - Will include all materials of a general nature
 - Will serve as introduction to the more detailed information found in the individual dot standards

Power Systems Design Editorial WG

- Chair: **Peter Southerland**
- E-Mail Address: (**peter.sutherland@ge.com**)
- Covers Content Previously in the:
 - **Red Book**
 - **Gray Book**
 - **Bronze Book**
 - **White Book**
- # of Topical Areas (dot standards): **11**

Power Systems Design Editorial WG

- Topical Areas:
 - Planning of . . .
 - Evaluating Electrical Service Req'ts of . . .
 - Design of . . .
 - Estimating the Cost of . . .
 - Application of Power Distribution Apparatus in . . .
 - Expansion, Modernization, and Rehabilitation of . . .

Power Systems Design Editorial WG — Continued

- Topical Areas:
 - Application of Communications and Signaling Systems Used in . . .
 - Instrumentation and Metering of . . .
 - Lighting of . . .
 - Electric Space Conditioning of . . .
 - Application of Controllers and Automation to . . .

Power Systems Analysis Editorial WG

- Chair: **Farook Shokoooh**
- E-Mail Address: (**farrokh@etap.com**)
- Covers Content Previously in the:
 - **Violet Book**
 - **Brown Book**
- # of Topical Areas (dot standards): **11**

Power Systems Analysis Editorial WG

- Topical Areas:
 - Conducting Load-Flow Studies of . . .
 - Conducting Short-Circuit Studies of . . .
 - Conducting Device Short-Circuit Studies of . . .
 - Arc-Flash Calculations for . . .
 - Transient Stability Studies of . . .
 - Motor-Starting Studies of . . .
 - Harmonic-Analysis Studies of . . .

Power Systems Analysis Editorial WG — Continued

- Topical Areas:
 - Switching Transient Studies of . . .
 - Cable-Ampacity Studies of . . .
 - Analyzing Voltage Sags of . . .
 - Analyzing DC Auxiliary and Battery Systems
in . . .

Power Systems Grounding Editorial WG

- **Chair: Doug Dorr**
- **E-Mail Address: (d.dorr@ieee.org)**
- **Covers Content Previously in the:**
 - **Green Book**
 - **Emerald Book**
- **# of Topical Areas (dot standards): 5**

Power Systems Grounding Editorial WG

- Topical Areas:
 - System Grounding of . . .
 - Bonding and Grounding Equipment in . . .
 - Static-Discharge Protection of . . .
 - Lightning Protection of . . .
 - Powering and Grounding Electronic Equipment in . . .

Protection and Coordination Editorial WG

- Chair: **Rasheek Rifaat**
- E-Mail Address:
(**Rasheek.Rifaat@jacobs.com**)
- Covers Content Previously in the:
 - **Buff Book**
 - **Blue Book**
- # of Topical Areas (dot standards): **13**

Protection and Coordination Editorial WG

- Topical Areas:
 - Application of Instrument Xfmrs in . . .
 - Application of Protective Relays in . . .
 - Application of LV Fuses in . . .
 - Application of HV Fuses in . . .
 - Application of LV Circuit Breakers in . . .
 - Ground-Fault Protection of . . .
 - Conductor Protection in . . .
 - Motor Protection in . . .
 - Transformer Protection in . . .

Protection and Coordination Editorial WG — Continued

- Topical Areas:
 - Generator Protection in . . .
 - Bus and Switchgear Protection in . . .
 - Service Supply Line Protection in . . .
 - Overcurrent Coordination of . . .

Emergency/Stand-By Power Editorial WG

- Chair: **Joe Weber**
- E-Mail Address: (**Jweber@ASCO.COM**)
- Covers Content Previously in the:
 - **Orange Book**
- # of Topical Areas (dot standards): **7**

Emergency/Stand-By Power Editorial WG

- Topical Areas:
 - Application of Generator Systems to . . .
 - Application of Stored Energy Systems to . . .
 - Improving the Reliability of Emergency and Standby Power Systems in . . .
 - Energy Management of . . .
 - Energy Management of Motors, Electrical Equipment and Lighting in . . .
 - Application of Metering for Energy Management of . . .
 - Application of Distributed Generation to . . .

Power Systems Reliability WG

- Chair: **Robert Arno**
- E-Mail Address: (**RArno@alionscience.com**)
- Covers Content Previously in the:
 - **Gold Book**
- # of Topical Areas (dot standards): **6**

Power Systems Reliability WG

- Topical Areas:
 - Reliability Planning and Design of . . .
 - Evaluating the Reliability of Existing . . .
 - Determining Impact of Preventative Maintenance on the Reliability of . . .
 - Determining Impact of Emergency and Stand-By Power on the Reliability of . . .
 - Use of Probability Methods for Conducting Reliability Analysis of . . .
 - Reliability Compliance Testing of . . .

Maintenance, Operation, and Safety Editorial WG

- Chair: **Dennis Neitzel**
- E-Mail Address:
(dennis.neitzel@avotraining.com)
- Covers Content Previously in the:
 - **Yellow Book**
- # of Topical Areas (dot standards): **3**

Maintenance, Operation, and Safety Editorial WG

- Topical Areas:
 - Operation and Management of Industrial and Commercial Power Systems
 - Maintenance of Industrial and Commercial Power Systems
 - Electrical Safety of Industrial and Commercial Power Systems