

IEEE Transformers Committee
C57.12.40
Secondary Network Transformer Working Group

Columbus, OH Meeting Minutes

**Hyatt Regency, Columbus, OH
Knox (2)**

11:00 am October 29, 2019

Members Present

Dave Blew (Chairman)
Dan Schwartz (Secretary)
Jason Attard
Piotr Blaszczyk
Douglas Craig
William Elliott
Mark Faulkner
Brad Kittrell
Brian Klaponski
Charles Morgan
Daniel Mulkey
George Payerle
James Ratty
Pedro Salgado
Stephen Schroeder
Adam Sewell
Jeremy Sewell
Igor Simonov
Robert Stinson
Liz Sullivan
John Vartanian

Company

PSE&G
Quality Switch
Consolidated Edison Co. of NY
The Specialty Switch Co LLC
Richards Manufacturing Co.
GE
Eaton Corporation
Consolidated Edison Co. of NY
Carte International Inc
Eversource Energy
Mulkey Engineering Inc.
Carte International Inc
Richards Manufacturing Co.
Electronic Technology Inc.
ABB, Inc
Quality Switch
Quality Switch
Toronto Hydro
GE
Dominion Energy
National Grid

Guests Present

Scott Abbott
Jerry Allen
Jeff Barnes
Israel Barrientos
Kevin Biggie
Paul Boman
Anthony Coker
Lucas Coffey
*Tom Dauzat
*Matthew Enders
Roger Fenton
Sanford Fong
Leonardo Galhardo
Zoran Goncin
Attila Gyore
Ken Hampton
Jack Harley
Robert Kinner
Gilbert Kozer
Maria Lamorey

Company

PPG
Metglas, Inc.
Norplex Micarta
Prolec GE
Weidmann Electrical Technology
HSBI&I Co.
M&I Materials
Alabama Power
GE
Oncor Electric Delivery
Fenton Solutions
Georgia Electric Power
DuPont
PTI Transformers
Midel
BG&E
First Power Group LLC
First Power Group LLC
Northeast Transformer
PPG

Bob Marx	M&I Materials
Brian McBride	Cargill, Inc
Kent Miller	T&R Electric Supply
Justin Minikel	Eaton Corporation
Kevin Rapp	Cargill, Inc
Chris Rutledge	Dynamic Ratings
Salahuddin Shaikh	ABB, Inc
Avilit Shingari	Pepco
*Travis Spooone	Eaton Corporation
Eric Theisen	Metglas, Inc
*Requested Membership	

- 1) The group met on Tuesday, October 29, 2019 at 11:00 am with 21 members and 25 guests. Three (3) guests requested membership. Quorum was achieved with 21/34 (62%) of members present.
- 2) A call for patents was made; none were mentioned.
- 3) Copyright requirements were reviewed by the Chair.
- 4) An agenda was presented and approved, and introductions were made.
- 5) The minutes of the March 26, 2018, meeting in Anaheim, CA were reviewed. The minutes were approved unanimously.
- 6) The Chair announced that the PAR was approved and became active May 21, 2019 and expires December 31, 2023.
- 7) Old Business - The Chair opened up the meeting for discussion on topics to be addressed in the next revision of C57.12.40 and the following suggestions were made and discussed:
 - a. It was discussed that the formation of a Task Force on Corrosion and Cathodic Protection was set up with the first official TF meeting occurring on October 29, 2019 at 3pm in Knox (2) here at Columbus, OH.
 - b. More discussion was had about addressing corrosion within this standard among points made were:
 - i. Mixing material in tank construction (example – base and structure SS and walls different)
 - ii. Hardware material selection to correspond with tank materials (hardware including glands, valves, bolts, etc.)
 - iii. Specifying materials and including welding wire in that specification
 - c. It was decided that we should review the C57.12.40 standard to determine what, if any, sections should be updated with corrosion and cathodic protection requirements. Jeremy Sewell agreed to conduct this review.
 - d. Discussion was held about where to house the corrosion and cathodic protection materials as they stretch across multiple standards; should this information be an annex, spread into the standard, or should a new standard or guide be created.
 - e. Taking up a discussion on the standardization of throat and tank sizing to include potential figures in the standard. The discussion focused on limited options in the standard for throat sizing.
 - f. Further improvement on Bushing Connection standardization and documentation within the standard. A discussion was held on the requirement to weld bushings versus bolting bushings in. It was discussed that any opportunity to weld versus bolt creates less opportunity for leaking.

- g. It was also discussed that we should visit the addition of the primary switch location in the next revision of the standard. Among items applicable to this topic are allowing user choices of locating the switch in the tank, separate from the tank, and locating the switch in its own tank; the standard should provide guidance for all three. A concern was raised that the WG should focus on maintaining the safety aspect of the previous revisions when considering how to address these potential additions as work practice vs. equipment safety. Igor Simonov has agreed to present on automated primary switching (including SCADA) that is currently in use during our next meeting in Charlotte, NC.
- 8) New Business – The Chair opened up the discussion on any new items the group felt needed to be addressed in the next revision.
- a. There are multiple instances where C57.12.40 and C57.12.24 do not reference the same and should be corrected:
 - i. Tank construction thicknesses
 - ii. Percent I_z difference in significant digits
 - b. John Vartanian brought up Table 8 and would like for it to be reviewed to determine if the table needs to be updated.
 - c. Igor Simonov also pointed out that Table 7 should cover up to 600V (it does not currently) to cover the title of the standard.
 - d. Igor Simonov also discussed additional testing that might be included in the standard:
 - i. Submersion testing
 - ii. Arc withstand of the transformer tank – this topic would include addressing intellectual property held by various manufacturers to then understand how we would integrate this into the standard as a type test.
- 9) The group discussed developing methods as a group and then assigning smaller groups to address and add to the standard.
- 10) The Chair discussed that we have a few meetings to hash out the proposed modifications to the current revision, but that we must be diligent about doing so in order to finish the next revision in a timely manner.
- 11) The meeting was adjourned at 12:05 PM with the next meeting set for Charlotte, NC on March, 24, 2020.

Respectfully submitted,
D. Blew, Chairman
D. Schwartz, Secretary