PC37.016 WG, Standard for AC High Voltage Circuit Switchers Rated 15.5 kV (HVCB)

October 17, 2022 – Hilton Burlington, VT

Chair: Neil McCord (Consultant)
Vice Chair: Luke Collette (Utility)
Secretary: N/A

Meeting Minutes

1. **Call to order and introduction:**

   The PC37.016 WG IEEE Standard for AC High Voltage Circuit Switchers Rated 15.5 kV met on Monday, October 17, 2022, at 3:45P M. Neil McCord, Working Group Chair, presided over the meeting.
   The Copyright, Patent, and Behavior/Ethics slides were presented.
   Chair called for any potential Patent claims. No Patent claims identified.

2. **Agenda:**

   Chair presented the agenda. Attendance sheet was circulated.

3. **Introduction of Members and Guests**

   Roster distributed and attendance recorded (attendance sheet attached to MOM).
   29 in attendance with 10 of 15 members (67%) present. Quorum met.

4. **Previous Meeting Minutes**

   Chair presented the minutes from the last meeting.

   - Motion to Approve MOM: Andy Keels
   - 2nd to Motion: Pat Dilillo

5. **Introduction of WG Leadership**

   Chair: Neil McCord (Consultant)
   Vice Chair: Luke Collette (Utility)
   Secretary: None

   Chair asked for volunteers to be secretary, preferably from a manufacturer. No volunteers.

6. **Presentation by Chair (attached to MOM)**

Chair gave a presentation with proposed changes to the document for discussion. The following is a summary of key notes and discussion points during the presentation.

Chair described how T60 in IEEE (for breakers 100 kV and up) is more severe than T60 in IEC, even though there has been harmonization between the standards. Since T60 in IEEE has been this way for past revisions of the standards, it was decided to reference it as is in existing IEEE standards. Discussion followed on the differences between C37.04, C37.016, and C37.06.1 for primary bus faults (PBF) and transformer-limited faults (TLF).

The overall consensus was in C37.016, the values for TRV (both PBF and TLF) are to be replaced by those from C37.04 and C37.06.1. Additionally, the term primary bus fault (PBF) is to be replaced by terminal fault to be more consistent with C37.04 and other circuit breaker documents.

Chair brought up the differences between using a first-pole-to-clear factor of 1.3 vs 1.5, and adding clarification to C37.016 to help users understand which is most appropriate for their system. Question was raised about how iTRV was handled for circuit switchers. Nobody provided a response.

A question was raised about why Table 1 in C37.016 is different than Tables 1a and 1b in C37.100.1. Nobody provided a technical reason for the difference.

It was asked if the rated control voltage should be on the nameplate. Response was that since C37.04 has it, it should be.

A question about the rated interrupting time in the tables of C37.016 was raised, but the discussion was tabled for the next meeting. Additional discussion was made with regard to harmonizing better with C37.100.1. To be discussed at another meeting.

The chair summarized the main items to be included in the revision of C37.016 as TRV harmonization with C37.04 and C37.06.1, updating references, and adding general clarifications.

There was a following discussion on temperature and pressure related to testing, and if temperature should be a rating and/or included on the nameplate. No conclusion was reached during the meeting.

7. **Next meeting:**

Spring 2023 6-20 April 2023 Planned for Sheraton Sand Key Resort, Clearwater Beach, FL

8. **Meeting Adjourned:** 5:30 PM

Submitted by:

Neil A. McCord
WG Chair, C37.016
Standard for AC High Voltage Circuit Switchers Rated 15.5 kV

IEEE PES Switchgear Committee
HVCB C37.016 - Meeting Roster

Place / Date of meeting: **Hilton Burlington, VT / October 17, 2022**

Initial to denote attendance	Last name	First name	Company name	Role	
X	Ashtekar	Koustubh	JST Power Eq	Guest	New
	Bray	Elizabeth	Southern Company	Guest	
X	Bryant	Craig	Duke Energy	Guest	New
	Bui	Ngoc	SDG&E	Guest	
	Cary	Stephen	2 Phase Solutions	Member	
X	Chovanec	Andrew	G&W	Guest	New
X	Collette	Lucas	Duquesne Light Co.	Vice Chair	
X	Cunningham	Jason	Southern States	Guest	
X	Diallo	Boubacar	Southern States	Guest	New
X	Dilillo	Pat	Con Ed	Member	
	Fennell	Bruce	Nashville Electric Services	Guest	
X	Hanna	Robert	JST Power Eq	Guest	New
	Hurst	Bill	GE	Guest	
	Hutchins	Neil	Georgia Power	Member	
X	Irwin	Todd	GE Grid Solutions	Member	
	Jagadeesan	Bharat	Southern States	Guest	
X	Jarnigan	Chris	Southern Company Services	Member	
X	Keels	Andy	KE Electric	Member	New
X	Lopez	Leo	WIKA	Guest	
X	Marshall	Vincent	Southern Company	Guest	New
	Marzec	Pete	S&C Electric Co.	Member	
X	May	Steve	Southern Company	Guest	New
X	McCord	Neil	KEC Precision LLC	Chair	
X	Meyer	Peter	S&C Electric Co.	Guest	New
X	Mitchell	David	Southern States	Member	
	Monroe	Andrew	Southern Company	Guest	
	Pellerito	Tom	DTE Energy	Guest	
X	Santulli	Jen	IEEE SA	Guest	
X	Schiffbauer	Dan	Toshiba International	Guest	
X	Schuetz	Carl	ATC	Member	
X	Scott	Jeff	Ameren	Guest	
X	Skidmore	Mike	AEP	Member	
X	Steigerwalt	Don	Duke Energy	Guest	
X	Toups	Vernon	Siemens Energy	Guest	
X	Trichon	Francois	Schneider Electric	Member	
X	Usner	Joe	AEP	Guest	New
X	Voyles	Adam	Ameren	Member	
	Ward	Jeff	Doble Engineering	Member	
X	Weisker	Jan	Siemens Energy	Guest	New
X	Young	Marcus	MEPPI	Guest	New
	Zhang	Wei	Southern Company	Member	