

IEC/IEEE 65700_19_03 DC Bushings TF
Minutes of 2021 Spring Meeting – Virtual Meeting
Tuesday, April 27, 2021 Session 6 2:20 – 3:35PM Central time

Vacant – Chair
Vacant – Vice Chair **J. Arturo Del Rio – Secretary**

The task force for the proposed revision of 65700.19.03 met virtually in WebEx on Tuesday April 27, 2021, at 2:20 PM

1. Welcoming and Call for Patents, Copyrights

- The meeting was called to order at 2:20 PM by the TF Secretary Arturo Del Rio.
- Due to personal reasons, the TF Chair Leslie Recksiedler has resigned. The Task Force is looking for a volunteer to fill this roll. Leslie is planning to return in 2022.
- Currently, the positions for Chair and Vice Chair are vacant and looking for volunteers for the rolls.
- The TF Secretary did a call for potentially essential patents and copyrights issues as slides sent in advance in meeting invite. None were reported.

2. Verification of Quorum

- The virtual attendance was checked with a Poll from Webex Encore
- There was a total of 20 participants: 5 Members and 15 Guests out of which 2 guests requested membership, not granted based on meeting attendance guidelines
- 5 of the current 8 TF Members were present and quorum to carry out business was met.
- The agenda for the meeting which was circulated by email among members and guests on April 19, 2021, was presented to the participants.
- There were no objections, and the agenda was approved unanimously.

3. Approval of the minutes of the October 20, 2020, virtual meeting

- The minutes from the F20 virtual meeting, which were circulated on April 19, 2021 by email, were presented to the participants.
- There were no objections or comments and the minutes were approved unanimously.

4. Discussion and Review

The minutes from the previous Fall 2020 Virtual meeting contained the lists of items and topics from the IEC and IEEE sides that have been identified needing revision or updating. For convenience, the list from the IEC survey is included below.

Mr. Lars Jonsson, IEC Chairperson- IEC survey results:
Proposal for the revision has covered as following, but not limited to:

1) Alignment of IEC/IEEE 65700-19-03 with IEC 60137

- Altitude correction is now inconsistent, and there may also be a need for clarification whether site conditions or test conditions shall be the base.
- Creepage distance calculation to be clarified
- The consequences of some of the cross references between the two documents should be reviewed, and clarifications added. Areas where different interpretations from different stakeholders have been noted concerns cantilever testing and impulse testing.
- Clarification regarding calculations of equivalent currents.

2) Take in consideration the possibility to decouple the two standards,

3) Necessity to provide a different variable name for the rated voltage for bushings for combined voltage application

4) Review the necessity of possible extension of qualifying DC tests

The maintenance procedure of IEC / IEEE dual logo standard can refer to the document "Guide to IEC/IEEE cooperation". If both organizations agreed to revise the mentioned standard, the procedure for maintenance of a joint IEC/IEEE International Standard is the same as the procedure for joint development.

From the IEEE side, the major areas needing standard revision are listed below:

- **Current Title:** IEEE 65700-19-03-2014 - IEC/IEEE International Standard -- Bushings for DC application, IEEE need to be completed by 2024. IEC by 2022
- VSC to be moved from Annex to inside standard
- 800 kV DC and 1100 kV DC bushings to be included – Any changes to the standard to accommodate
- Resin Impregnated Synthetic (RIS) Bushings to be included. The bushing's core is wound with synthetic fabrics
- Hybrid Insulation Bushings if required
- Extended DC polarity reversion test to conform with the revised test in the converter Transformers standard

Each of these topics was briefly discussed among the participants and it was agreed that these topics could be address by the task force/working group. Only pending for clarification is the context of 'hybrid insulation bushing' used by the Chair in previous meetings.

5. New Business

- Major areas of the standard needing revision to be identified. Volunteers required to review sections.
- PAR to be created to move from Task Force to Working Group in conjunction with IEC– Title, Scope and Purpose, once the revision timeline with IEC is coordinated.

- The Bushings Subcommittee Chair, Eric Weatherbee, will be contacting Mr. Lars Jonsson for coordinating the PAR submission activity prior to the IEC General Meeting taking place in June 2021.

6. Meeting Adjournment @ 3:15 pm

Next Meeting is planned to take place in Milwaukee, Wisconsin, on October 17-21, 2021.

Submitted respectfully,

Art Del Rio (a.delrio@ieee.org)

TF Secretary

Meeting Attendance and Membership standing.

Role	First Name	Last Name	Company	City	State
Guest	Mubarak	Abbas	Siemens Industry	Raleigh	NC
Secretary	J. Arturo	Del Rio	Siemens Energy	Raleigh	NC
Guest	Eric	Euvrard	RHM International	Brookline	MA
Guest	David	Geibel	Hitachi ABB Power Grids	Murray	KY
Member	Kurt	Kaineder	Siemens Energy	Leonding	Other
Guest	John	Lackey	PowerNex Associates	Longford Mills	ON
Guest	Bruno	Mansuy	Trench France SAS	Saint Louis	Other
Guest	Nitesh	Patel	Hyundai Power Tr	Montgomery	AL
Guest	Dipakkumar	Patel	Instrument Transformer	Matthews	NC
Member	Ulf	Radbrandt	Hitachi ABB Power Grids	Ludvika	Other
Guest	Juan	Ramirez	CELECO	Apodaca	Other
Guest	Stefan	Schindler	Reinhausen	Regensburg	Other
Guest	William	Solano	Instrument Transformer	Monroe	NC
Guest	Brian	Sparling	Dynamic Ratings, Inc.	Surrey	BC
Member	Fabian	Stacy	Hitachi ABB Power Grids	Alamo	TN
Guest	Troy	Tanaka	Burns & McDonnell	Kansas City	MO
Guest	Yves	Vermette	Electro Composites ULC	St-Jerome	QC
Member	Eric	Weatherbee	PCORE Electric	LeRoy	NY
Guest	William	Whitehead	Siemens Energy	Raleigh	NC
Guest	Christopher	Whitten	Hitachi ABB Power Grids	Alamo	TN