

2014 PES Annual Meeting: Portland, OR

D1-IEEE Std. 1427 Meeting Notes

May 20, 2014

Meeting Time: 08:00hrs-12:00hrs

MEMBERS: 10 of 20 (Quorum recognized before 09:00hrs)

GUESTS: 23

- **PAR DISCUSSION FROM PREVIOUS MEETING REVISITED:** PAR is approved, through 2015, to finish updates to this standard. Action item in PAR discussed. PAR actions are to make known editorial corrections and to “Examine entire guide also”. Clarification issued that this means to examine the guide for additional editorial errors. Statement is not intended as an opening to change the scope of document, requiring the working group to pursue possible updates not intended by the scope of 1427. Additions of other items, following consideration by the working group as valid and/or required, should become part of the PAR for 2015 (assuming the request can be completed by 2015).
- **VOTE:** No opposition was recorded, as the working group voted to modify the PAR’s core agenda to make known editorial corrections to the guide. Changes to be included in next revision (2016).
- **ACTION ITEM – 2014-1:** Hamid Sharifinia to submit an addendum to the PAR by June 6, 2014.
 - **EDITORIAL UPDATES (FROM PREVIOUS MEETING DISCUSSED):** review from last meeting put on minutes and add issue for the close of parenthesis in EHV table.
 - **TABLE 3 CORRECTION:** Editorial correction to phase-to-ground column, clearances for 169kV system voltages. 56 inches = 1425 mm, not 1325 mm.
 - **EQUATION CORRECTION:** Table B.3, breaker/switch/bus voltage calculations. Change equation to:
$$E_B = \frac{2E}{n} - \frac{2-n}{n} [2S(T_A + T_B)] - \frac{2S\tau}{n} \left[1 - e^{-\frac{t_f + 2(T_B + T_A)}{\tau}} \right],$$
as an example of proposed correction (noted by highlighted +, for change from -).
- **ACTION ITEM – 2014-2:** Hamid Sharifinia to compile information relating to discussions concerning an altitude correction factor for clearances relating to BIL. Hamid to work with Hanna Abdalah to gain a better understanding of issues in the guide and our petition to the NESC to use our approach as rational for including an altitude correction factor and reference to this guide in Part 1 of the NESC.
- **DISCUSSION CONCERNING ALTITUDE CORRECTION FACTORS:** Guide mentions but does not include (clearly) how to apply an altitude correction factor in BIL equations. Research altitude correction factor for BIL. Some attending members at the Raleigh, NC meeting mentioned that original versions of equations may have had the air density factor included in the calculations for clearances based on BIL. It is unclear how to apply the recommendations documented in section 6.4.2 for clearances based on lightning impulse conditions.
- **ACTION ITEM – 2014-3:** Hanna Abdalah to present clarification on how the application of lightning arresters can affect values for electrical clearances in air-insulated substations. Proposed as a future update (perhaps in the form of an Annex to the guide).
- **DISCUSSION:** Reviewed comments on insulation coordination. Decision made that other IEEE standards cover insulation coordination and it is outside the scope for the guide.
- **OFFICER ANNOUNCEMENT:** Hamid will not step down, as previously noted, as working group chair. Announced David Stamm is now vice chair.