

IEEE Power Engineering Society  
Switchgear Committee Meetings  
Loews LeConcorde Hotel  
Quebec City, Canada  
10/1/01

### C37.20.1 Working Group Report

Meeting was convened at 8AM, with 4 WG members and 10 guests present. Excused absences were accepted for T. Burse and G. Nourse.

Draft D11 was successfully balloted in June. Over the course of the summer, Ted Olsen collated and circulated the comments, and reached consensus on many issues. The remaining issues were reviewed at this meeting, and consensus reached on all items. D12 will be now be prepared, and will be re-balloted with the original ballot pool.

The following list is itemized by comment number from the collated comments list. (This list has been circulated among those making comments. A copy can be emailed to those who would like one; please email request to [NedHSimon@eaton.com](mailto:NedHSimon@eaton.com).)

- [1] leave title alone; it will be too cumbersome to define "low voltage" within the title
- [6] leave tin-surfaced as is; this would be more appropriate for "common clauses" to address
- [9] agree; condense into two paragraphs
- [10] same as for [9] – agree
- [11, 12] leave the 60HZ basis as is; 50HZ and other frequencies are to be considered as a special application
- [24] change per Olsen 9/15 conclusion. The standard is not clear enough when dealing with the permissible temperature rise of primary contacts. We agreed that the best way to clarify the issue is to refer to the tables in C37.13 and C37.14 where the limits are defined.
- [39] accept the 0.5m/s pre-test draft spec. The phrase "reasonably free from drafts" needs to be defined in a less subjective manner, and 0.5m/s is a value that has been successfully applied in other standards.
- [41] accept Olsen 7/19 conclusion – the new text clearly defines the test voltage and current parameters
- [43] accept Olsen 8/18 conclusion. A lengthy discussion of metric conversions with respect to bus bar size concluded that bus bars are trade-sized, and a metric conversion has little merit. The metric conversion will be shown, but is intended for reference only.
- [45] accept Olsen 8/18 & 9/15 conclusions. It was agreed that the test criteria was not well stated.
- [46] delete "if circuit breaker is required" phrase
- [49] accept the change of moving the exceptions into the requirements – the requirements don't change, and will be easier to understand
- [51] accept the new clause on short-circuit testing of auxiliary equipment primary disconnect devices, per 7/10 Olsen conclusion
- [52] no change will be made - the WG did not see the need to test at the ambient temperature limits
- [53] change 6.2.6.3 (a) to read "no maintenance shall have been necessary" during the mechanical racking tests
- [57] change 29m/s to 105km/hr
- [59] accept Olsen 7/19 conclusion; there is no need for the reference to potheads, etc

- [60] no change will be made; bonding is the term that best fits
- [68] accept Olsen 6/23 conclusion, and move last sentence of 7.1.3.1.4 into 1<sup>st</sup> sentence. See Olsen's markup for revised second sentence. 2<sup>nd</sup> paragraph moves to become 3<sup>rd</sup> paragraph; add new 2<sup>nd</sup> paragraph that says, "Wiring used in dc circuits rated 48Vdc and above shall not contain pvc."
- [76] accept Olsen 7/19 conclusion – use 1993 para 6.5 wording, which refers to "power circuit protectors" (the use of "fused circuit breakers" in this paragraph is a typo)
- [81] accept Olsen 7/19 conclusion – the note will read "external icing tests are not required"
- [82] no change – will not allow larger frames in smaller cells
- [107] accept Olsen 9/15 conclusion – the pre-operation field tests should include a high-potential or 500V insulation resistance test
- [108] no changes to be made – the WG agrees that standard requires suitable protection for bus tap connections
- [113] no changes to be made to the table of contents
- [123] no changes to be made – this clause does not deal with all field tests, but only with field dielectric tests
- [116] no changes to be made – the ac test should continue to be the preferred test
- [117] no changes to be made – issue tabled for next revision, with the specific intention to better represent 75/90 issue
- [118] no changes to be made – issue tabled for next revision; the issue of "touch temperature" values should be addressed by common clauses
- [121] change the title of clause 5.7 to "Phase current transformer accuracies".
- [122] accept Olsen 8/18 conclusion – rewording is needed to clarify the testing requirements
- [129] no changes to be made – the phrase "degree of protection" has come into common usage
- [133] no changes to be made – covered by UL1558 labeling requirements

Puckett's comments:

- [24] see discussion above
- [76] see discussion above
- [107] if the user wishes to use a 1000V insulation tester, it exceeds the 500V called for in the proposed wording, so is acceptable. We want at least a 500V tester, not a low voltage device.
- [116] the tests for cables are different, it is agreed.
- [117] the issue of cable temperatures is worthy of study, but cannot be handled in this working group in reasonable time. This will be suggested as a topic for future revision of C37.20.1
- [119] reference to ambient is not needed in 5.6.2 as it is in 5.6.3.
- [121] add "phase" to the title of clause 5.7

Respectfully submitted,

Ned H Simon  
C37.20.1 Working Group Chairman