

IEC BUSHING STANDARDISATION WORK

Within IEC, standardisation of bushings is covered by Technical Committee TC36: Insulators, Subcommittee SC36A: Insulated Bushings.

Sub-committee officers are:

Chairman: Lars Johansson, ABB, Sweden.
Secretary: Alberto Sironi, CESI, Italy.

The last meeting of SC36A was held at the IEC General Meeting in Rosslyn, Virginia, on December 9th 2004. The next meeting will be Berlin, Germany in October 2006. There is one active working group:

SC36A MT5: IEC 60137: Insulated bushings for alternating voltages above 1kV.
Project Leader: John Graham, Trench-UK.

A Committee Draft (CD) was distributed for comment by National Committees in October 2005 and comments close in April 2006 for discussion in Berlin.

As reported previously TC14 would prefer that all dielectric tests on to the transformer have been applied to the bushing, with a margin of 10%. Bushing manufacturers consider this procedure has no technical or economic justification and if the margin is required then bushings of a higher rating should be purchased. Although we thought we had a compromise TC14 have stated that if all their requirements are not included, they will be put into the next revision of IEC60071-3. It would be unacceptable for there to be conflict between the two standards so further discussions are needed.

Other Work

SC36A MT6: IEC 61464: Dissolved gas analysis of bushings.

This new maintenance team will be set up to review the document published in 1998. This gives information on interpretation of DGA specifically for bushings. There have been issues with TC10 on the scope and whether this work should be included in IEC60599. No work yet.

SC36A MT7: IEC 61463: Seismic qualification of bushings.

This new maintenance team will be set up to review the document published in 1997. This offers a more simplified approach to qualification than IEEE 693, allowing static calculation. No work yet.

CENELEC TC36A WG4 prTS50458: Capacitance graded outdoor bushings 52 up to 420kV for oil filled transformers

This document gives dimensional standardisation for transformer bushings and was accepted for publication in November 2005.

John Graham
Trench UK Limited
8 March 2006