DECISION SHEET

Standard(s)- (year and edition): IEC 60601-1:1988 Ed.2 Am1+Am2	**Sub clause(s):** 57.9, 57.9.1	**Sheet n°: DSH-418**
Subject: Load resistance in relation to load current	**Key words:** Load resistance, load current	**Confirmed by CTL at its 39th meeting, in Cologne**

Question:

Practically the test is performed with the winding under overload connected to a resistor with the resistance value that yields the correct test current in accordance with Table XX. As the windings get heated during the test their resistance increases and one has to decrease the value of the load resistor to keep the current in the fused circuit in accordance with Table XX during the test. Since the decrease of current is a result of the increase in the winding's temperature, it seems to be an unrealistic fault condition to keep the current in the fused circuit unchanged instead of keeping the load resistance unchanged.

Decision:

The test load current must be maintained at its original value

Explanatory notes:

Although the winding resistance increases requiring a decrease in the load resistance to maintain the test current, this would present a worst-case test. The overload test is based on the protective device characteristics. The test current must remain constant because it is not known what will happen in the abnormal conditions. The only known factor is the criteria for the protective device.