

Study the Effect of Iron Particles on Transformer Oil

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Abstract: *Almost all the transformers in power systems contains transformer oil. Transformer oil acts as an insulating oil, also it maintains the power flow and voltage level conversion in the system. Due to ageing, high temperature, oxidation and other contaminants the oil gets degraded over the time. Therefore, for efficient power supply we should determine the behaviour of transformer oil under different uncertainties which can happen during the life span of oil. In this paper we have measured breakdown voltages (BDV) at different conditions with the help of BDV kit. During the experiments we found that the aged oil which has undergone routine filtration has significant more dielectric strength than the fresh oil. Also, the metal particles in the oil affects the BDV value drastically.*

Keywords: Transformer, Insulating oil, BDV, Dielectric strength, Contamination.

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