ANALYSIS OF FAULT IN POWER TRANSFORMER BY USING DISSOLVE GAS ANALYSIS

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ABSTRACT

Transformer is an equipment that transform power from one circuit to another circuit without changing any frequency but different in voltage level. Power transformer will successfully function depends on component which are in their consistent thermal and electrical stress. There is many type of fault occur in transformer which is arcing, partial discharging and overheating. All this type of fault can be traced by using Dissolve Gas Analysis Techniques. The main function of Dissolve Gas Analysis Techniques is to analyze and differentiate the type of electrical faults in transformer. Different gas level in the transformer oil that produced by the breakdown occur in the transformer oil will detected by Dissolve Gas Analysis. This research is focusing on investigate the type of dissolves gases and fault occur in fault mineral oil and comparing with fresh and new of the mineral oil. The techniques that need to use and investigate consist of three techniques that are Duval Triangle, Roger Ratio and Key Gases in order to detect a fault. The result will determine which is interpretation technique more capability and reliability to be used for test the fault in the transformer. This analysis finding that all methods of Dissolve Gas Analysis have an advantages and disadvantages when used. Dissolve Gas Analysis would more precise and accurate if all the method is applied together.

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