

**A CASE STUDY ON PRE-COMMISSIONING OF POWER
TRANSFORMER**

This thesis is presented in partial fulfillment for the award of the
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ABSTRACT

After new power transformer has been set up on site and before it connect with power supply and loading the load, it is must to have to go through numbers of testing procedures for confirming the specifications and performances of a power transformer. The purpose of commissioning tests on transformer is to satisfy, to pre-determined standards, that all the equipment erection is correct and that all the equipment connections or cables have been installed in accordance with the approved erection drawings and diagrams. This paper describes about some testing before commissioning of power transformer at site (Penang Port Sdn.Bhd., Pulau Pinang).

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF STUDY

Nowadays, transformer is most important equipment in electrical power transmission and power distribution system. The transformers are usually very reliable, with a 20-35 year design life with in practice [5]. The transformer is an electrical device that transfers energy by inductive coupling between two or more of its winding for transforming power from one circuit to another circuit without changing frequency. Transformer works only with varying electric current where the primary winding creates a varying magnetic flux in the transformer 's core and thus it have varying magnetic flux through secondary winding or electromotive force (EMF) process will be happen[2]. The transformers are very important in the distribution of electric power because they raise the voltage of electricity generated at the power plant on higher level before transmit the electricity to consumer using transmission network [4].

The transformers are classified into mainly categories which is power transformer and distribution transformer [2]. The difference between power transformers and distribution transformers is depends on their rated power. Power transformers are used in transmission network of high voltages and are generally their rated power is above 200MVA. For the distribution transformers are usually used for distribution network where the secondary voltage is almost the voltage delivered to the end consumer and generally the rated power is lower than 200MVA.