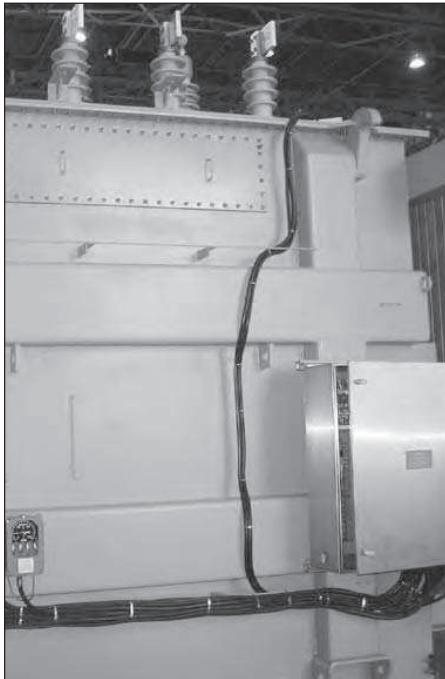

POWER TRANSFORMERS

TESTING OF TRANSFORMERS



WHAT YOU WILL LEARN:

- Gain the valuable know-how used by Electrical Engineers in Operation and Maintenance of Power Transformers.
- Understand different kinds of testing of transformers and their purposes.
- Understand the basis of acceptance and rejection of a test result based on standards.
- Be aware of important points to be considered between the manufacturer and the requestor to avoid dispute at a later stage.

WHO SHOULD ATTEND:

This workshop will be appropriate for the following professionals:

- Electrical Engineers
- Power Engineers
- Maintenance Engineers
- Maintenance Supervisors
- Power Electricians

The Workshop

This will provide you with practical knowledge (including tips, tricks and tools) covering the fundamentals of Power Transformers and their testing. It will greatly assist you in communicating more effectively with your Electrical Engineering colleagues. At the end of this workshop, participants will be familiar with the following aspects:

1. The importance of Transformer testing and their purpose.
2. Different kinds of transformer tests and their procedure.
3. Practical applications of principals applied in transformer operation and maintenance.

Pre-requisites

An elementary understanding Power Transformers and their purpose in an industry will be undertaken at the commencement of the course. Please bring a pocket calculator for solving problems during the practical sessions.

The Program

INTRODUCTION: TRANSFORMER AND THEIR TESTING

KINDS OF TESTS

- Routine Test
- Type Test
- Special Test

GENERAL REQUIREMENTS OF TESTS

TRANSFORMER TESTS

- Measurement of Winding Resistance
- Measurement of Voltage Ratio and check of voltage vector relationship.
- Measurement of Impedance voltage/ short-circuit impedance (principal tapping) & load loss
- Measurement of no load loss and current
- Measurement of Insulation Resistance
- Dielectric Tests
- Temperature Rise
- Test on on-load Tap Changers
- Short-circuit Test
- Measurement of Acoustic Noise Level
- Measurement of the harmonics of the NLC
- Measurement of Power Taken by Fans/ Oil-Pumps
- Magnetizing Current Test
- Magnetic Balance Test

INSULATING OIL

- • Characteristic of Insulating Oil
- Causes of Deterioration of Insulating Oil
- Testing of Insulating Oil
- Inhibitors – An Introduction

INTRODUCTION TO DISSOLVED GAS ANALYSIS

TOLERANCE TABLE

