

# ELECTRAC Training Material Content

Introduction to Working Safely with Electricity

## Part 1 Electricity Is Dangerous

★ Hazards ★ High Voltage Arc Flashes ★ Excessive Heat Causes Fires ★ Unannounced Switching On & Off Can Cause Injuries ★ Electrical Shock ★ Effects of Electric Current in the Human Body ★

## Part 2 Legal Requirements

★ Structure of the Act ★ Regulations ★ Electrical Machinery Regulations ★ Electrical Installation Regulations ★ General Safety Regulations ★ General Machinery Regulations ★

## Part 3 Understanding Electricity

★ Qualified and Unqualified People ★ Unqualified People: ★ Qualified People: ★ Introduction to Electricity ★ Voltage & Volts ★ Resistance & Ohms ★ Current & Amps ★ Conductors ★ Insulators ★ Isolators ★ Static Electricity ★ Natural Static Electricity ★ Electromagnetism ★ Electric Motors ★ Generators★

## Part 4 Features of Electricity

★ Ac Vs. Dc ★ Rheostats ★ Electrical Circuits ★ Distribution Boards ★

## Part 5 Using Electricity

★ Working with Electricity ★ States of Electricity ★ Energized ★ De-Energized ★ Lock-Out & Tag ★ Wiring A Plug ★ Use of Extension Cords ★

## Part 6 Protection from Electrical Hazards

★ Safe Work Procedures ★ General Safety Practices and Procedures ★ Tools, Equipment and Appliances ★ Personal Protective Equipment and Clothing (PPE & PPC) ★ Prevention and Protection from Accidents ★ Insulation ★ Isolation / Guarding ★ Bonding ★ Earthing / Grounding ★ Electrical Protection Devices ★ Lock-Out Devices ★ Earth Leakage Units ★ Thermostats ★ Colour Coding ★ Tagging ★ Warning Signs ★ Testing ★ Good Judgement ★ Action in the Event of an Electrocution ★

## Part 7 Inspecting for Hazards

★ Done by Trained Person ★ Frequency of Inspection ★ Portable Appliances ★ Permanent Installations ★ Flameproof and Waterproof Fittings ★ Remove It from Use ★ Registers and Checklists

## Part 8 Inspecting for Hazards

★ Classroom Exercise ★



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