Learning Outcomes in Module Report

Module Code	SPC01
Module Name	Co-Generation & Other Turbine Cycles

Learning Outcomes

Code	Name	Hours	Description
1.0	Co-Generation & Other Arrangements	6	After completing this module and associated workbook the participant should be able to understand the following concepts and apply them in day-to-day work activities: Co-generation arrangements. Heat recovery from diesels and gas turbines. Back pressure steam turbines. Energy utilisation. Balance of heat and power demand, Condensing turbines. Condenser loss. Units of absolute pressure, vacuum. Feedwater heating. Extraction steam for process. Forms of energy; heat, mechanical, electrical. Properties of steam and water. Sensible heat, latent heat, superheat. Effect of pressure on saturation temperature. Use of steam tables. Heat and efficiency calculations for different cycles. Effect of operating conditions on efficiency. The reheat cycle. The use of temperature-entropy charts. The function of major plant systems including - main and auxiliary steam - turbine extraction steam - condenser circulating water - condensate and feedwater systems - feedwater heaters - boiler and combustion systems - boiler air and gas systems - fuel supply systems - turbine support systems - generator support systems - monitoring and control systems - station service supply systems.

Count: 1