Learning Outcomes in Module Report

Module Code	SPC07
Module Name	Steam Turbine Operation & Control

Learning Outcomes

Code	Name	Hours	Description
7.0	Steam Turbine Operation & Control	6	After completion of this module the participant should be able to understand the following concepts and apply them in day-to-day operation: Operation of the turbine hydraulic control system. Governor operation. The function of turbine control valves and stop valves. The function of reheat intercept valves and reheat stop valves. Location of steam chest(s). Operation of drains on steam piping, stop valve, steam chest, turbine shell. The need for turning gear. Start-up procedure. Limitations to rate of raising speed. Critical speeds. Full-arc and partial arc steam admission. Matching steam temperature to turbine metal temperature. Turbine steam by-pass. Minimum load requirements. Effects of turbine expansion. Supervisory equipment: eccentricity, vibration, differential expansion, metal temperature, shaft position, pedestal position. Prevention of water ingress to the turbine. Function of protection devices, overspeed, low vacuum, thrust bearing failure, loss of lube oil pressure, boiler-generator-turbine intertripping, steam pressure deloader. Turbine trip function. On-load testing of protective devices. Exercising stop valves. Control room layout. Significant monitoring points.

Count: 1