Generator Operations, Maintenance, Control, Testing & Troubleshooting

TE288

Course Overview:

This course has been developed to improve the effectiveness of generator operations and maintenance activities. Participation will provide the attendee about:

-Starting and operation of generators safely and effectively

-Abnormal operating conditions in generator and to determine the most appropriate response to such conditions.

-Effective generator preventive maintenance schedule.

Course Objective:

Upon successful completion of this course the participant should be able to:

-Understand constructional design of Power plant generator and operation.

-Explain the function of instrument transformers (PTs and CTs)

-Understand protective relaying.

-Concept of reactive power and effect.

-Concept of synchronization and methods.

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Course Outline:

-Electrical Theory Review

-AC Generators: Construction and operation

-Power: Concepts, active and reactive

-Three Phase Power

-Generator Construction: Various parts of generator

-Stator & Windings, Frame, Core, Stator Bars, Wedges, End Support

-Generator Rotor: Forging/Winding, Retaining Ring, Fans/Blowers, Collector Rings

-Generator Cooling

-Automatic Voltage Regulators

-Protective Relays

-Electrical Power Systems

-Reactive Power

-Generator Voltage Controls

-Synchronizing the Generator

-Generator Capability

-Generator Maintenance

-Electrical Testing

Who Should Attend:

he course is useful for all plant personnel involved in operation and maintenance of generators.Control room and auxiliary operators, maintenance technicians, plant management, supervisors, engineers, and work leaders, will benefit from this training program.

Training Language:

English

Training Methodology:

-Presentation & Slides

-Audio Visual Aids

-Interactive Discussion

-Participatory Exercise

-Action Learning

-Class Activities

-Case Studies

-Workshops

-Simulation