

GENERAL MAINTENANCE FOR GAS TURBINES AND GAS COMPRESSORS

MCE002

COURSE DESCRIPTION

The high cost of maintenance has prompted many organizations to view the management of the maintenance function with more urgency. The increase in the size and complexity of gas turbines and gas compressors has resulted in maintenance being accepted as an important mainstream function in such companies.

This course provides the participants with the means to properly operate and support the gas turbines and gas compressors in a way based on the good acquaintance with the modern technologies applied in this field. Trouble-shooting and forecasting break downs are inclusive.

COURSE GOAL

To enhance the participants' knowledge, skills, and attitudes necessary to give him some practical exposure to helps maintain the gas turbines and gas compressors in good operational conditions and cope with the emergency cases of breakdown.

COURSE OBJECTIVES

By the end of this course, participant will be able to:

- Have an overview of maintenance function and objectives.
- Be familiar with maintenance types and strategies.
- Deal with common problems associated in the rotating equipment in general.
- Understand general maintenance operations.

WHO SHOULD ATTEND

Turbine and compressor maintenance engineers of relatively short experience and senior technicians of medium experience who have the ability to improve and develop their capabilities.

COURSE DURATION

5 Working Days

COURSE OUTLINES

1. Introduction

- Overview of maintenance function and objectives.
- Maintenance job standards.

- Maintenance types and strategies.
- Common problems associated in the rotating equipment in general.

2. General Maintenance Operations

- Lubrication.
- Maintenance of mechanical parts (Plain bearing, roller bearing, couplings, valves, seals, etc...).
- Diagnostic methods.
- Vibration analysis.
- Balancing.

3. Turbine Maintenance

- GT operating principles, components and characteristics.
- Turbine operating checks and Performance monitoring.
- Shaft, bearings and seals maintenance.
- Blades and nozzles maintenance.
- Shaft sealing system.
- Hydraulic and pneumatic systems maintenance. (Supply systems, fuel control, atomizing air system, cooling and sealing air system).
- Cooling water system and water injection system maintenance.
- Starting system maintenance.
- Ducting and valves maintenance.
- Turbine troubleshooting, testing and re-installation.

4. Gas Compressor Maintenance

- Types, application and lubrication.
- Compressor monitoring and fault diagnosis.
- Maintenance of, Shaft, bearings, blade and seals.
- Maintenance of filtration system.
- Gas compressor operating checks.
- Compressor installation and controls checks.
- Compressor inspection, troubleshooting practices.
- Common causes of gas compressor deterioration.

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