



MU268A: Heavy Duty Gas Turbine Major Inspections

Training Description:

This training course offers a firm understanding of the basic maintenance requirements and major inspections of heavy-duty gas turbines and their auxiliary support systems. This course does not include any discussions of generators. The course is designed for those people with power plant mechanical background.

This training course is intended for personnel with limited or basic knowledge of GE gas turbine maintenance.

Training Objectives:

By the end of the training, participants will be able to learn:

- ✓ Basic gas turbine component construction and maintenance procedures. Participants receive a fundamental knowledge of auxiliary systems function and preventative maintenance
- ✓ Basics of gas turbine operating cycle
- ✓ Review of gas turbine major components, equipment arrangements and associated maintenance requirements and inspections of each section of the turbine
- ✓ Turbine operations and the effect on maintenance intervals
- ✓ Purpose, major inspection, function and routine preventative maintenance of the various turbine support systems such as the lubricating oil, hydraulic, variable inlet guide vanes and fuels

Training Designed for:

This course is intended for supervisors and mechanical maintenance.

Training Requirement:

"Hand's on practical sessions, equipment and software will be applied during the course if required and as per the client's request."

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

FIVE DAYS:

- ❖ INTRODUCTION
- ❖ LESSON 1 - GAS TURBINE FUNDMENTALS
 - Introduction
 - Basic Gas Turbine Operating Cycle and Performance Characteristics
- ❖ LESSON 2 - GAS TURBINE CONSTRUCTION
 - Gas Turbine Glossary of Terms
 - Navigating GE Service Manuals
 - Gas Turbine Major Components and Construction
 - Compressor Rotor Assembly
 - Turbine Rotor Assembly
 - Standard Practices

- Borescope Inspections
- ❖ **LESSON 3 - SCHEDULED MAINTENANCE**
 - Combustion Inspection
- ❖ **LESSON 4 - SCHEDULED MAINTENANCE**
 - Hot Gas Path Inspections
- ❖ **LESSON 5 - SCHEDULED MAINTENANCE**
 - Major Inspection
- ❖ **LESSON 6- GT AUXILIARY SYSTEMS**
- ❖ Function and Routine Preventative Maintenance:
 - Lubricating Oil System
 - Hydraulic and Lift Oil System
 - Trip Oil System
 - Inlet Guide Vane System
 - Inlet Air and Exhaust System
 - Control Air
 - Inlet Air (Bleed) Heating
 - Cooling and Sealing Air System
 - Gas Fuel System
 - Fuel Purge System
 - Liquid Fuel
 - Water Injection
 - Atomizing Air
 - Seal Oil System
- ❖ Course Conclusion
- ❖ POST-ASSESSMENT and EVALUATION

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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