



# Gas Turbine Driven Centrifugal Compressors

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## **COURSE CONTENT**

### **Aim**

This site-specific course is designed to enable engineers, supervisors, operations, and maintenance personnel to safely operate GE designed heavy duty gas turbine units. This course develops a background in gas turbine operation that will enable participants to properly analyze operating problems and take the necessary corrective action.

Emphasis is placed on the operator's responsibilities with regard to auxiliary systems, operational data taking, and data evaluation. Operators are instructed in how to interpret fault annunciation and how to determine if the annunciate fault can be remedied by operator action or by the assistance of instrumentation and/or maintenance personnel. The course focuses on the starting, loading, and specific operator checks of the various turbine support and auxiliary systems to ensure safe and reliable operation of the gas turbine unit. Also covered is the effect of operation on major mechanical maintenance.

### **Pre-requisites**

Course not intended for experienced plant operation and maintenance personnel

### **Course Duration**

This course is of 5 Days in duration.

### **Optimum Number**

Maximum of 10 delegates per course.

### **Training Aids**

PowerPoint Presentation.

## **COURSE SYLLABUS**

The typical Gas Turbine Operation course covers the following areas:

- Gas Turbine Fundamentals
  - Basic theory of operation
  - Base and machine arrangement
- Support Systems Operation and System Checks
  - Inlet filter
  - Lube oil
  - Hydraulic and control oil
  - Cooling water
  - Cooling and sealing air
  - Fuel system(s)
  - Starting means
  - Heating and ventilation
  - Fire protection
- Control System
  - Arrangements
  - Control functions and operating sequences
  - Protection Functions
- Operator Responsibilities
  - Data taking and evaluation
  - Operating limits
  - Required operator action on various annunciation indications
- Unit Operation
  - Start-up
  - Normal operation
  - Shutdown
  - Emergency procedures
  - Gas Compressor Loading and unloading
- Anti Surge
  - Function of the anti surge system
  - Surge characteristics
  - Surge control

**Dates available on request**

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