

Simple Cycle CT Plant Operating Engineer First Class

Qualifications

Minimum age - Adult

Education - High School Diploma / GED or Equivalent

Experience - Four years

Minimum time in previous grade – 2 Years

Examination - Written (Oral or Practical when necessary)

Maximum Refrigeration or Air Conditioning (Unsupervised) - 5000 tons

Curriculum at the Minimum:

- Suitability for Peaking and Black Start
- The Aero Jet Engine
- Gas Generator
- Free Turbine
- Multi-shaft Arrangements
- Shaft Speeds
- Auxiliary Systems
- Compressed Air Starting
- Start-up and Operating Procedures
- Controls
- Operator-Maintenance Coordination
- Types of Maintenance: Running, Predictive and Preventive
- Operator Observations, Abnormalities and Defect Reports
- On-line and Off-line Maintenance
- Pressures and Temperatures
- Performance Testing
- Vibration Analysis
- Pre-planned Maintenance and Scheduled Outages
- Inspections: Combustion Equipment, Hot Gas Path and Major Overhaul
- Examination by Borescope
- Generator Construction
- Hydrogen and Air Cooling
- Excitation Systems
- Control of MVARs
- Synchronizing
- Parallel Operation
- Auxiliary Power Supplies
- Generator Protection
- Basic Management Practices
- Electrical Transmission and Distribution Systems
- General Industrial Safety
- Environmental Regulations and Protection.