

HVAC / Chiller Operating Engineer Third Class

Qualifications

Minimum age - 18

Education - High School Diploma, GED or equivalent

Experience -6 months or 3 credit hour of Training or equivalent

Power Engineering Training

Examination – Written

Maximum Refrigeration or Air Conditioning (unsupervised) 100ton

No conversion in this classification test only

Recommended Books and Readings

HVAC-Heating, Ventilating and Air Conditioning Third Edition American Technical Publishers

Industrial Maintenance American Technical Publishing

Curriculum at the Minimum:

- Basic Mathematics
- Safety
- Basic Thermodynamics and Heat
- Basic Combustion and Fuels
- Basic Electricity
- Basic Psychometrics
- Basic Forced Air Heating System
- Basic Refrigeration Principles
- Basic Management of Refrigerants and Refrigeration Systems
- Basic Pressure-Enthalpy Diagrams
- Basic Compression Systems –Low Side
- Basic Compression System- High Side
- Basic Air Condition Systems
- Basic Heat Pumps
- Basic Control Systems
- Basic Heating and Cooling Loads
- Basic Load Calculations
- Basic HVAC Unit Selection
- Basic Forced Air System Design
- Basic Hydronic System Design
- Basic Distribution System Balance
- Introduction to Absorption Chillers
- Basic Maintenance Principles
- Basic Service and Repair Principles
- Basic Electronic and Programmable Controllers
- Basic Boiler Systems
- Basic Mechanical Systems
- Basic Fluid Power Systems
- Basic Troubleshooting