

## HVAC MECHANIC

### DESCRIPTION OF WORK

Employees in this class perform the full range of journey work duties associated with the construction, maintenance, and repair of air-conditioning systems and associated air handling, chilled water distribution, and control mechanisms. In addition, employees maintain refrigeration units and their control systems.

Work assignments are generally in the form of work orders indicating the nature of the problem. Employees are expected to identify the cause of the problem, determine materials and tools, needed and method of repair, and carry out repair procedures independently on most jobs. The larger, costlier, exceptional, or more complex jobs may be reviewed by a technical supervisor to determine extent of malfunction, to assure that proper work methods are being followed and that work is of acceptable quality. Employees may train new mechanics or supervise the work of helpers.

### EXAMPLES OF DUTIES PERFORMED

Using electrical test devices, troubleshoots and repairs chiller electrical control circuits.  
Independently overhauls small reciprocal compressors. Overhauls larger reciprocal, absorption, and centrifugal compressors under technical supervision.  
Checks accuracy and calibrates electrical, pneumatic, and electronic control systems.  
Troubleshoots control circuits and replaces faulty thermostats, wiring, and control devices.  
Performs preventive maintenance on air-conditioning and air handling equipment.  
Logs operational characteristics of chillers according to preset schedule.  
Installs air-conditioning units, wires controls, and builds and installs ductwork and chilled water piping.  
Adjusts chillers and balances distribution systems to achieve maximum energy efficiency.  
Removes and replaces joints or lengths of pipe in chilled water distribution systems.  
Performs related duties as required.

### RECRUITMENT STANDARDS

#### Knowledges, Skills and Abilities

Working knowledge of refrigeration theory.  
Knowledge of electricity sufficient to troubleshoot and repair complex electrical control systems.  
Working knowledge of the designing and operation of centrifugal and reciprocal compressors.  
Working knowledge of the design and operation of pneumatic control systems.  
Working knowledge of the practices, methods, materials, and equipment used in the operation, maintenance, and repair of air-conditioning and refrigeration systems.  
Ability to diagnose equipment malfunctions and to prescribe and perform repair procedures.  
Skill in the use of tools and equipment utilized in the repair of air-conditioning systems.

#### Minimum Training and Experience Requirements

High school or General Educational Development diploma and three years of progressive experience in the installation, maintenance or repair of air conditioning chillers, air handling, chilled water distribution and control systems; or an equivalent combination of education and experience.

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#### Minimum Training and Experience for Trainee Appointment

High school or General Educational Development diploma. One year technical school graduates in air conditioning may start at the twelve month step; two year technical school graduates may start at the twenty-four month step. Adjustments may be made to starting salaries for technical school graduates depending on course content and applicability to the work to be performed.

#### Administering the Class

Positions engaged in air conditioning work at less than the journey work level will be classified at an appropriate lower level within the maintenance mechanic series. Refer to class specification for Maintenance Mechanic I or II for this determination.

#### Necessary Special Qualifications

Requires current certification by the Environmental Protection Agency as a Type I, II, III or Universal technician as required by Title 40, Code of Federal Regulations part 82, subpart F.

Special Note - This is a generalized representation of positions in this class and is not intended to identify essential functions per ADA. Examples of work are primarily essential functions of the majority of positions in this class, but may not be applicable to all positions.