

## **HEATING, VENTILATION AND AIR CONDITIONING MECHANIC**

### **DEFINITION:**

Under general supervision of the Maintenance and Operations Manager, performs skilled work in the installation, maintenance and repair of a variety of air conditioning, ventilating and heating equipment; assumes and performs related work as necessary or required.

### **CLASS CHARACTERISTICS:**

This is a journey-level HVAC Mechanic classification. The incumbent is expected to work independently in repairing and maintaining HVAC equipment in accord with the requirements and general procedures established by the Board of Trustees and the Assistant Superintendent, Administrative Services. When not performing skilled heating and air conditioning work, incumbents may be assigned to perform a wide variety of general maintenance work in other trade areas at unskilled, semi-skilled or skilled levels.

### **EXAMPLES OF DUTIES:**

Based on work orders installs, inspects, diagnoses and repairs and/or maintains a variety of air conditioning, heating and ventilation equipment, refrigeration systems, ducts and vents; *E*

Using computer (s), configured with appropriate software, either remotely or on site, troubleshoots HVAC concerns and makes adjustments to heating and air conditioning systems and balances air supplies throughout the District; *E*

Makes frequent inspection of HVAC equipment to ensure operational efficiency; *E*

Installs, repairs, maintains valves, fans, motors, switches, gaskets, filters, belts, fuses, controls, thermostats, dampers, pumps, gauges, tubing, pipe, and related HVAC equipment; *E*

Maintains and makes repairs to gas heaters, gas water boilers and domestic water heaters, including repair of gas lines, tests joints; insulates pipes, utilizes a wide variety of tools, equipment and test devices common to the HVAC trade and rewires, brazes, rebuilds, modifies existing equipment and systems assuring work in progress and completed complies with applicable EPA laws, rules and regulations; *E*

Repairs and maintains major appliances such as domestic and commercial refrigerators, freezers, ovens, stoves, warming/refrigeration carts; *E*

Plans, lays-out own work and that of assigned helpers, oversees work of assigned helpers; *E*

Inventories, requisitions materials and supplies;

Prepares written and/or makes verbal reports on the status of HVAC and related equipment as necessary or required.

*E denotes an essential function of the job.*

**SUPERVISION:**

General supervision is received from the Maintenance and Operations Manager.

Leadership and direction is provided to assigned helpers. Supervision is not exercised over other employees.

**MINIMUM QUALIFICATIONS:**

**Knowledge of:**

Methods, materials, tools, and equipment used in the maintenance, repair and operation of HVAC systems and equipment;

Pipefitting, sheetmetal, electrical, welding/brazing skills used in skilled HVAC work;

HVAC and electrical theory and operation;

Energy conservation methods and procedures;

Basic understanding of the use of a PC (Personal and/or laptop computer);

Appropriate safety precautions and procedures;

Applicable codes, regulations;

Proper use of refrigerant recovery equipment and safe disposal of refrigerant containers;

Shop mathematics.

Simple record keeping and filing procedures.

**Ability to:**

Perform skilled work in the installation, repair, modification and maintenance of a wide variety of HVAC systems and equipment;

Perform skilled work in the maintenance and repair of a wide variety of high and low voltage (480v to 24v) electrical circuits and associated HVAC equipment;

Use a variety of HVAC and/or electrical diagnostic equipment and repair tools;

Work from diagrams, plans, blueprints, oral and written instructions;

Read, understand, work from and explain to others information contained in technical manuals;

Plan, layout work; instruct, lead work of assigned helpers;

Estimate time, materials and cost needed to complete assigned tasks;

Coordinate repair and installation requirements to outside HVAC contractors;

Operate PC(s) {Personal Computer(s)} and effectively utilize shop specific software to troubleshoot and repair HVAC equipment;

Operate motor vehicle equipment;

Establish and maintain cooperative working relationships.

**EDUCATION AND EXPERIENCE:**

Individuals possessing the foregoing knowledge, skills and abilities are considered to possess education necessary to succeed in this class. The basic educational skills are typically acquired in completion of high school. Job specific skills are typically acquired in post-secondary training in basic electrical theory and principals of refrigeration/air conditioning, or through one to two years of experience working with/assisting a skilled HVAC mechanic. Two to three years of progressively responsible experience reflecting use of journey-level HVAC skills is desirable.

**LICENSES REQUIRED:**

Possession of a valid and appropriate California Driver's License.

Environmental Protection Agency (EPA) Type II Certification for handling Freon 22 (R22).

**PHYSICAL DEMANDS AND WORKING ENVIRONMENT:**

Stands, walks, climbs stairs and ladders, maintains balance, stoops, bends repeatedly, kneels, crawls, and frequently reaches over head to perform work; lifts, pushes, pulls, carries up to 40 pounds; repetitively uses fingers on both hands, twists and exerts pressure with wrists and hands; uses both hands/legs simultaneously; requires rapid mental/muscular coordination; communicates clearly and is able to understand normal voice conversation; requires hearing over a broad range of frequencies; has good depth perception and normal color vision; visual acuity sufficient to see small details and safely operate a District vehicle; works in various lighting conditions; works in and around motorized and belt driven electric equipment; uses a variety of refrigeration test equipment and drives a District vehicle; uses a telephone and computer; works inside and outside with frequent temperature changes and occasionally in heat above 90EF; works in confined spaces, wet/damp areas; occasionally exposed to odors, fumes, dust, gases, and toxic materials; has direct contact with District staff and vendors; works without direct guidance from supervisor; occasionally wears a respirator or dust mask. Employment is contingent upon passing a physical examination and back evaluation test.

Last revised 5/95

Deactivated 3/28/06

Classification reactivated & revised by Personnel Commission 8/12/09