



## HEATING, VENTILATION, AND AIR CONDITIONING (HVAC), JOURNEY

**SALARY GRADE:** [C3-54](#)

### **DEFINITION:**

This is a skilled position at the full journey level that performs heating, ventilation and air conditioning (HVAC) maintenance work. The employee uses appropriate tools, safety techniques, equipment and supplies in the maintenance and repair of HVAC systems and equipment (i.e. chillers, direct expansion units, hot water boilers, air handling units, exhaust fans, circulating pumps, and energy management equipment) of buildings and other College and District facilities. A high degree of independent judgment and creativity is required to select from alternative solutions, materials, supplies and appropriate procedures.

Incumbents in this classification are assigned to work primarily in the trade in which they have major skills in the area of HVAC maintenance, but many also be assigned to assist other Plant Services personnel as needed.

### **EXAMPLE OF DUTIES AND RESPONSIBILITIES:**

Depending upon assignment, duties may include, but are not limited to, the following:

#### **General Responsibilities**

1. Uses safety equipment, supplies, and procedures to perform job duties as required; reports fire, sanitary and safety hazards and the need for repairs to appropriate administrator.
2. Responds to immediate safety and/or operational concerns (e.g. facility damage, alarms, etc.) for the purpose of taking appropriate action to resolve immediate safety issues and to maintain a functional educational environment; provides reports on activities as requested by appropriate administrator.
3. Stores and shelves equipment and other supplies in conformance with various local, state, federal, and district rules and regulations; maintains equipment in a safe operating condition; maintains preventive maintenance procedures, records, and reports.
4. Directs visitors and safeguards district property; adheres to all state and federal laws and regulations regarding safety and health.
5. Attends and participates in District and/or College provided training or information sessions; incorporates new information or technology into existing job duties.
6. Shall carry a communication device, if assigned one, and be available for general HVAC duties.
7. Uses a computer for entry and retrieval of information for work assignments.
8. Communicates effectively orally, in writing, and electronically.
9. Operates equipment such as District vehicles, electric carts, electric power lifts, forklift, etc.; will use ladders.
10. Estimates cost of jobs; specifies, orders, and procures supplies, materials, tools, and equipment for the purpose of maintaining availability of required items and completing jobs efficiently; maintain inventory of supplies, parts and equipment; confers with appropriate administrator regarding cost effective use of materials and supplies.
11. Transports various items (e.g. tools, equipment and supplies) for the purpose of ensuring the availability of materials required at job site.
12. Provides direction and training to apprentices as assigned.
13. Performs other related duties as assigned.

#### **Trade Responsibilities**

1. Installs, relocates, and maintains building HVAC equipment and systems; diagnoses malfunctions of HVAC equipment and systems and/or components for the purpose of identifying repair and replacement needs.
2. Installs, maintains, and repairs refrigeration units.
3. Installs and maintains fan coil units and air handling units including filter changes, periodic lubrication, bearing change out and drive belt replacement.

4. Installs and maintains exhaust fans and associated controls, hot water, chilled water and domestic water circulating pump; rebuilds pumps as required.
5. Maintains, repairs and tunes hot water boilers to optimize efficiency; maintains and oversees hydronic units needed for heating and ventilation, steam generators and boilers.
6. Maintains and repairs direct expansion, roof top package air conditioning with hot water, electric or gas heating, chillers and associated control devices.
7. Installs, wires and programs energy management systems components.
8. Fabricates and installs minor sheets metal work and ducting.
9. Maintains equipment rooms, shops, vehicles and tools.
10. Performs daily equipment inspections for climate control, pressure, water use, equipment malfunctions; maintains a log of records.
11. Performs daily equipment inspections on energy producing turbines; troubleshoots problems; and maintains equipment and area.
12. Maintains equipment rooms, shops, vehicles and tools.
13. Performs HAZMAT/safety inspections; maintains clogs, records, and signs fire extinguisher tags.

## **EMPLOYMENT STANDARDS:**

### **Knowledge of:**

1. HVAC and refrigeration principles and their application to the maintenance, repair and installation of HVAC and refrigeration equipment, systems, and devices.
2. The application and use of testing equipment used in checking, testing and analyzing HVAC systems.
3. Methods, materials, tools, safety practices and equipment used in the HVAC trade.
4. Safety factors in the operation of equipment and materials.
5. Applicable safety codes, ordinances and regulations.

### **Ability to:**

1. Demonstrate understanding of, sensitivity to, and respect for the diverse academic, socio-economic, ethnic, religious, and cultural backgrounds, disability, and sexual orientation of community college students, faculty and staff.
2. Estimate the scope of a project, costs, materials and timelines required to complete assignments.
3. Read and work from blueprints, technical manuals, charts and schematics.
4. Install, maintain, and repair a variety of HVAC equipment.
5. Analyze, diagnose, and repair system malfunctions.
6. Maintain accurate records and reports on completed assignments.
7. Assign work to and oversee the work of Apprentices in the HVAC trade.
8. Operate and maintain a variety of equipment and tools.
9. Understand and carry out oral and written instructions.
10. Observe safety requirements and safe work practices and methods as required.
11. Establish and maintain cooperative work relationships.
12. Work independently and under minimal supervision.

### **Education**

Equivalent to the completion of the twelfth grade. Completion of appropriate trade school courses or the equivalent.

### **Experience**

Three years of experience in a comparable position.

### **License or Certification**

1. Possession of a valid class C California driver's license.
2. Environmental Protection Agency (EPA) license.

**WORKING CONDITIONS:**

**Environment:**

1. Indoor, office environment and outdoor environment, with climate changes.
2. Hazardous conditions.
3. Includes travel to conduct work.

**Physical Abilities:**

1. Hearing and speaking to exchange information.
2. Dexterity of hands to perform the tasks required of the position.
3. Sight in order to be aware of hazards and dangers found in the nature of the work.
4. Regularly stand, walk, and sit for extended periods of time.
5. Ability to climb, stoop, kneel, reach, push, pull, grasp, and perform repetitive motions.
6. Climb ladders of varying heights.
7. Ability to maneuver in crawl spaces, attics, and utility tunnels.
8. Ability to work at extreme heights.
9. Lift moderate to heavy objects up to 60 lbs.

Date Approved: December 2008