HEATING, VENTILATION, AND AIR CONDITIONING (HVAC), APPRENTICE I/II/III

SALARY GRADE:  Apprentice I: C3-46; Apprentice II: C3-48; Apprentice III: C3-52

DEFINITION:

Employees in this classification perform apprentice level work in the trade of heating, ventilation and air conditioning (HVAC) maintenance trade and does related work as required.

Incumbents in this classification are assigned to work primarily in the trade of heating, ventilation and air conditioning (HVAC) maintenance, but may also be assigned to assist other Plant Services personnel as needed.

DISTINGUISHING CHARACTERISTICS:

Apprentice I

This is an entry-level position. Employees are required to complete eighteen (18) months of service and one hundred fifty (150) successful hours of trade related vocational instruction. An employee who fails to complete the required hours for training/coursework will be subject to discipline procedures. Employees who attain established levels of proficiency and qualifications are eligible to move to the next level in the apprenticeship program.

Apprentice II

This is a semi-skilled position. Employees are required to complete eighteen (18) months of service and one hundred fifty (150) successful hours of trade related vocational instruction. An employee who fails to complete the required hours for training/coursework will be subject to discipline procedures. Employees who attain established levels of proficiency and qualifications are eligible to move to the next level in the apprenticeship program.

Apprentice III

This is an advanced semi-skilled position. Employees are required to complete eighteen (18) months of service and one hundred fifty (150) successful hours of trade related vocational instruction. An employee who fails to complete the required hours for training/coursework will be subject to discipline procedures. Employees who attain established levels of proficiency and qualifications are eligible to move to the journey level position.

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. Transports various items (e.g. tools, equipment and supplies) for the purpose of ensuring the availability of materials required at job site.
11. Performs other related duties as assigned.

Trade Responsibilities

Apprentice I works under direction of a Journey level position.

Apprentice II works under the general direction of a Journey level position, with some independence.

Apprentice III works with oversight from a Journey level position, exercising a high level of independence.

All Apprentice positions perform the following:

1. Installation, relocation, and maintenance of building HVAC equipment and systems; assists in the diagnoses of malfunctions of HVAC equipment and systems and/or components for the purpose of identifying repair and replacement needs.
2. Installation, maintenance, and repair of refrigeration units.
3. Installation and maintenance of fan coil units and air handling units including filter changes, periodic lubrication, bearing change out and drive belt replacement.
4. Installation and maintenance of exhaust fans and associated controls, hot water, chilled water and domestic water circulating pump; rebuilds pumps as required.
5. Assists in the maintenance and repair of hot water boilers to optimize efficiency; assists in the maintenance of hydronic units needed for heating and ventilation, steam generators and boilers.
6. Maintenance and repair of direct expansion, roof top package air conditioning with hot water, electric or gas heating, chillers and associated control devices.
7. Assists in the fabrication and installation of minor sheets metal work and ducting.
8. Maintains equipment rooms, shops, vehicles and tools.
9. Assists in performing HAZMAT/safety inspections; maintenance of logs, records, and signing of fire extinguisher tags.

EMPLOYMENT STANDARDS:

Apprentice I

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. Trade school courses desirable.

**Experience**

Basic knowledge of methods, materials, tools, safety practices and equipment used in the heating, ventilation and air conditioning (HVAC) maintenance trade.

**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