



### Building Automation/Building Management/Energy Management Systems Technician

**SALARY GRADE:** [C3-62](#)

**DEFINITION:**

This is a skilled position at the journey level that uses BAS/BMS/EMS data in maintenance and operation of HVAC systems. Uses Building Automation Systems, Building Management Systems, and Energy Management Systems, including trending reports, and interpretation of data for maintenance and operation of HVAC system performance and troubleshooting. The employee uses appropriate tools, safety techniques, equipment and supplies in the performance of his/her duties, to troubleshoot, repair and maintain all HVAC systems referred to above, throughout all FHDA 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 of HVAC/electrical maintenance, but may 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/electrical 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. Reviews HVAC plans for District projects and make recommendations as needed.
11. 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.
12. Transports various items (e.g. tools, equipment and supplies) for the purpose of ensuring the availability of materials required at job site.
13. Performs other related duties as assigned.

### **Trade Responsibilities:**

**In addition to performing troubleshooting and maintaining HVAC systems, the position will be responsible for the following duties:**

1. Uses BAS, BMS and EMS for HVAC systems in all FHDA facilities including, running trend reports and analyzing same for operational deficiencies and providing corrective actions based on the reports. Analyzes requests for service and report problems with heating, ventilating, and air conditioning systems.
2. Using the graphical user interface (GUI,) monitors the operation of the District's BAS/ BMS/EMS; programs these systems to accommodate schedules as required by facility usage.
3. Participates in vendor installations and commissioning of software and hardware points on the BAS/BMS/EMS on a point-to-point basis to ensure proper operation; participates in testing and calibration of all controls; and operates all controls hardware.
4. Monitors the effectiveness of energy conservation measures and makes appropriate recommendation for improvements.
5. Generates reports as requested of items that affect energy usage including schedule changes, temperature trend logs, and equipment trend logs.
6. Maintains equipment rooms, shops, vehicles and tools.
7. Participates in any commissioning aspect of building HVAC district-wide.

### **EMPLOYMENT STANDARDS:**

#### **Knowledge of:**

1. HVAC principles and their application to the maintenance, repair and installation of HVAC equipment, systems, and devices.
2. The application and use of BAS/BMS/EMS.
3. Methods, materials, tools, safety practices and equipment used in the climate control and energy conservation 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. Review plans for District projects and make recommendations.
4. Read and work from blueprints, technical manuals, charts and schematics.
5. Install, maintain, and repair a variety of HVAC equipment.
6. Operate HVAC controls and components.
7. Analyze, diagnose, and repair HVAC controls.
8. Maintain accurate records and reports on completed assignments.
9. Operate and maintain a variety of equipment and tools.
10. Understand and carry out oral and written instructions.
11. Observe safety requirements and safe work practices and methods as required.
12. Establish and maintain cooperative work relationships.
13. Work independently and under minimal supervision.

#### **Education**

1. Equivalent to the completion of the twelfth grade. Completion of appropriate trade school courses or the equivalent.
2. Evidence of completion of education and/or training related to BAS/BMS/EMS.

**Experience**

Three years of experience in a comparable position.

**License or Certification**

1. Possession of a valid class C California driver's license.
2. Possession of an EPA Certification: Universal Refrigerant Handling Certification: 40 CFR BB2 Sub Part F or the ability to obtain license within six months of employment.

**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.

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