



**Classification Title: Senior HVAC Technician**

<b>Department:</b>	Building Services	<b>EEO6 Code:</b>	6
<b>Employee Group:</b>	Classified	<b>Salary Grade:</b>	29
<b>Supervision Received From:</b>	An Assigned Supervisor in Building Services	<b>Date of Origin:</b>	3/2017
<b>Supervision Given:</b>	General Supervision	<b>Last Revision:</b>	3/2017

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed by individual positions.*

**JOB SUMMARY.**

Performs skilled, advanced journey-level duties in the inspection, installation, repair and servicing of heating, ventilation, air conditioning, refrigeration and related equipment, machinery and facilities.

**DISTINGUISHING CHARACTERISTICS.**

Senior HVAC Technician is an advanced journey-level class responsible for installing, troubleshooting, diagnosing, maintaining and repairing a variety of large, small and complex heating, ventilating, air conditioning and refrigeration systems and equipment in District facilities. Assignments vary, encompass a variety of tasks, seldom require detailed instructions, and require sound judgment and initiative. The HVAC Technician is distinguished from the Senior HVAC Technician in that the latter class requires more advanced knowledge in the heating and air conditioning trade and has lead-level responsibilities.

**ESSENTIAL AND MARGINAL FUNCTION STATEMENTS.**

**Essential Functions:** Essential responsibilities and duties may include, but are not limited to, the following:

1. Installs, operates and maintains the District's heating, air conditioning/refrigeration systems and energy systems; conducts regular preventive maintenance inspections of refrigeration units, heating and ventilating units, including boilers, gas and electrically operated air conditioning equipment and makes necessary adjustments or repairs.
2. Inspects, repairs, modifies and installs heating and air conditioning and ventilation equipment, including refrigeration and air conditioning compressors, receivers, condensers, chillers, water cooling towers, forced-air converter units, pumps, automatic and hand valves, expansion valves and capillary tubes.
3. Installs and calibrates energy management controls; installs direct digital controllers (DDC) and integrates Transmission Control Protocol/Internet Protocol (TCP/IP) networking and RS-485 communication equipment.
4. Repairs or replaces defective parts in units and equipment and their controls, including thermostats, electronic controllers, automatic switches, fan controls, log switches, damper motors, louvers, relays, filters, belts, compressors, heat exchangers, high-limit controls, pressure controls, safety valves and automatic gas valves.
5. Tests and examines boiler operations, observing meter and pressure gauges; conducts boiler water quality tests and treatments; adjusts boiler burner combustion.
6. Lubricates and packs heating, ventilation, refrigeration and air conditioning motors, pumps, fans and other equipment.

7. Installs copper tubing and repairs pipes and tubing as necessary; tests joints and insulates pipes of refrigeration and air conditioning systems; flushes boilers, de-scales tubing and cuts and threads pipes; rebuilds pressure and temperature safety valves and water pumps.
8. Repairs and maintains furnace gas controls and motors, filters and condensing units; inspects, detects and repairs leaks; checks and replaces thermocouples and pilot generators; cleans and adjusts pilots.
9. Operates a variety of hand and power tools, vacuum pump and test equipment utilized in the trade; maintains equipment in effective and safe working condition.
10. Diagnoses mechanical and electrical problems; repairs or replaces defective parts in units, equipment and controls.
11. Installs, rebuilds, replaces or repairs fans, motors, thermostats, fuses, filters, bearings, valves, controls, gaskets and other equipment as necessary.
12. Receives work orders; prepares cost estimates for projects and orders materials in accordance with established procedures; provides direction to assigned personnel and participates in assigning work; inspects the work of outside contractors.
13. Observes and complies with relevant federal, state and local building codes; follows safe work practices and procedures; ensures proper safety precautions are observed.
14. Works from sketches, plans, drawings, blueprints and specifications.
15. Monitors the work of outside contractors.

**Marginal Functions:**

1. Assists other Facilities personnel in cooperative assignments.
2. Maintains a variety of records of completed work, including blueprints, sketches, diagrams and logs; writes reports as required; assists in developing specifications for work to be completed by others.
3. Operates vehicles to travel to various District sites.
4. Performs related duties and responsibilities as required.

**QUALIFICATIONS.**

**Experience and Education/Training Guidelines:** Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

**Experience:** Five years of journey-level experience in the heating, air conditioning and refrigeration trade.

**Education/Training:** Equivalent to completion of the twelfth grade.

**Licenses/Certificates:**

1. Possession of, or ability to obtain, an appropriate, valid California driver's license by time of appointment.
2. Current Environmental Protection Agency (EPA) Refrigeration license.
3. Current HVAC certification from an accredited institution.

**Knowledge of:**

1. Standard principles, practices, methods and tools of heating, air conditioning and energy system installations and maintenance.
2. Materials, methods and tools used in the operation and repair of heating, air conditioning and refrigeration systems.

3. Web-based building control systems.
4. Applicable building codes, ordinances and regulations of state and local authorities pertaining to building operations and HVAC systems.
5. Practices of sustainability programs.
6. Air compressor and pneumatic control operation, installation, maintenance and repair.
7. Cooling tower and boiler water treatment.
8. Welding, soldering and pipefitting techniques.
9. Health and safety regulations.
10. Basic recordkeeping techniques.
11. Proper methods of storing equipment, materials and supplies.

**Skill in:**

1. Performing skilled mechanical maintenance duties in the inspection, repair, installation and alteration of heating, ventilation, air conditioning and refrigeration systems and related equipment and facilities.
2. Calibrating systems.
3. Performing preventive maintenance and routine servicing equipment.
4. Diagnosing defects and installing, repairing and maintaining heating, ventilating, refrigeration, and air conditioning units.
5. Interpreting and working from plans, diagrams and specifications.
6. Following oral and written instructions.
7. Operating specialized machinery, equipment and tools utilized in the repair, installation and maintenance of heating, ventilation, air conditioning and refrigeration systems.
8. Communicating effectively both orally and in writing.
9. Understanding and following oral and written directions.
10. Working independently with little direction.
11. Meeting schedules and timelines.
12. Maintaining routine records.
13. Maintaining sensitivity to and understanding of the diverse academic, socioeconomic, cultural, disability, gender identity, sexual orientation, and ethnic backgrounds of community college students, faculty, and staff.
14. Establishing and maintaining effective working relationships with those encountered in the course of work.

**WORKING CONDITIONS.**

**Environmental Conditions:** The employee frequently works in outside weather conditions, near moving mechanical parts, and on slippery and uneven surfaces. The employee is frequently exposed to wet or humid conditions, fumes or airborne particles, toxic or caustic chemicals, and risk of electrical shock. The noise level in the work environment is frequently loud.

**Physical Conditions:** Essential and marginal functions may require physical fitness requirements necessary to perform the job functions with or without accommodation, such as the ability to stand, walk or sit for prolonged periods; stoop,

kneel, crouch or crawl; work at heights of up to 50 feet; and use hands to repetitively finger, handle, feel or operate objects, tools or controls. The employee must regularly lift and/or move up to 50 pounds and occasionally over 75 pounds.

**TERMS OF EMPLOYMENT.**

The duration of any fully restricted funded position in this classification is dependent upon the continuation of funding.