

**CLASS SPECIFICATION
HVAC Technician
Range 49**

GENERAL PURPOSE

Under general supervision of the Director for Facilities Planning and Operation and/or Designee, performs skilled, journey-level duties in the inspection, installation, repair and servicing of heating, ventilation, air-conditioning, refrigeration and related equipment, machinery and facilities; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

HVAC Technician is a journey-level class responsible for installing, troubleshooting, diagnosing, maintaining, and repairing a wide variety of large, complex heating, ventilating, air-conditioning, and refrigeration systems and equipment at school sites and all other District facilities. Assignments vary, encompass a variety of tasks, seldom require detailed instructions, and require sound judgment and initiative.

HVAC Technician is distinguished from a Lead HVAC Technician in that the Lead Technician is an advanced journey-level, working lead class, providing technical assistance, training, and lead worker duties for a staff of journey-level HVAC Technician.

ESSENTIAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class. There will typically be an assigned schedule for these duties.

1. Receives work orders; maintains records of completed work orders, including time and materials; orders and maintains an inventory of HVAC tools and materials for the District's HVAC shop.
2. Conducts regular preventive maintenance inspections of refrigeration units, isolated heating and ventilating units, including water heaters, gas and electrically operated air-conditioning equipment, and makes necessary adjustments or repairs; services and repairs evaporative coolers, ice machines, and air balancing.
3. 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, and Variable Refrigerant Flow (VRF) system.
4. Repairs or replaces defective parts in units and equipment and their controls, including thermostats, automatic switches, fan controls, log switches, damper motors, louvers, relays, filters, controls, belts, compressors, heat exchangers, high-limit controls, pressure controls, safety valves, and automatic gas valves.
5. Lubricates and packs heating, ventilation, refrigeration and air-conditioning motors, pumps, fans and other equipment.

6. Installs and calibrates systems; 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.
7. Repairs and maintains furnace gas controls and engines, filters and condensing units; inspects, detects and repairs leaks; checks and replaces thermo-couples and pilot generators; cleans and adjusts pilots.
8. Operates a variety of hand and power tools, welders torch, vacuum pump, and test equipment such as computers and meters utilized in the trade.
9. Performs skilled electrical maintenance work in the repair, installation and alteration of electrical equipment, components, timers, motors and wiring systems as needed; connects meters to control panels and panels to power sources.
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. Prepares cost estimates for projects and orders materials in accordance with established procedures.
13. Works from sketches, plans, drawings, blueprints and specifications.
14. Follows safe work practices and procedures; ensures proper safety precautions are observed.
15. Observes and complies with relevant federal, state and local codes.
16. Manages HVAC system via Energy Management System applications.
17. Operates a personal computer and other office equipment.

OTHER DUTIES

1. Assists other skilled maintenance personnel in cooperative assignments.
2. Maintains a variety of records of completed work, including blueprints, sketches, diagrams and logs.
3. Operates vehicles to travel to various District sites.
4. Complete work orders using the current implemented work order system.

QUALIFICATIONS

Knowledge of:

1. Standard practices, methods and tools of the heating and air-conditioning trade.
2. Theory of heating and air-conditioning and refrigeration systems.
3. Materials, methods and tools used in the operation and repair of heating, air-conditioning and refrigeration systems.

4. Applicable building codes, ordinances and regulations of state and local authorities pertaining to heating, air-conditioning and refrigeration.
5. Air compressor and pneumatic control operation, installation, maintenance and repair.
6. Cooling tower and boiler water treatment.
7. Manual and electrical tools and equipment applicable to the heating, air-conditioning and refrigeration trade.
8. Welding and soldering techniques.
9. Health and safety regulations.
10. Basic record-keeping techniques.
11. Proper methods of storing equipment, materials and supplies.

Ability to:

1. Perform skilled mechanical maintenance duties in the inspection, repair, installation and alteration of District heating, ventilation, air-conditioning and refrigeration systems and related equipment and facilities.
2. Calibrate systems.
3. Perform preventive maintenance and routine servicing of equipment.
4. Diagnose defects, and install, repair and maintain heating, ventilating, refrigeration, and air- conditioning units.
5. Interpret and work from plans, diagrams and specifications.
6. Follow oral and written instructions.
7. Operate specialized machinery, equipment and tools utilized in the repair, installation and maintenance of heating, ventilation, air-conditioning and refrigeration systems.
8. Communicate effectively both orally and in writing.
9. Understand and follow oral and written directions.
10. Work cooperatively with others.
11. Work independently with little direction.
12. Meet schedules and time lines.
13. Maintain routine records.
14. Perform heavy physical labor and lift heavy objects.
15. Establish and maintain effective working relationships with District management, staff and others encountered in the course of work.

Education, Training and Experience:

Graduation from high school or G.E.D. equivalent; and two years of journey-level experience in the heating, air-conditioning and refrigeration trade.

Licenses; Certificates; Special Requirements:

A valid California Class C driver's license, a good driving record and the ability to maintain insurability under the District's vehicle insurance policy.

Current EPA Refrigeration license.

Upon acceptance of the District's offer of employment, new hires may be required to complete a baseline physical examination prior to the first day of employment.

PHYSICAL AND MENTAL DEMANDS

The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical Demands

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools or controls; and reach with hands and arms. The employee frequently is required to stand and talk or hear; walk or sit; climb and work up to heights of 100 feet; stoop, kneel, crouch or crawl.

The employee must regularly lift and/or move up to 50 pounds and occasionally over 100 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and the ability to adjust focus.

Mental Demands

While performing the duties of this class, the incumbent is regularly required to use written and oral communication skills; read and interpret data, information and documents; analyze and solve problems; use shop mathematics; observe and interpret situations; deal with changing, intensive deadlines; and interact with management, staff and others encountered in the course of work.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The employee frequently works in extreme 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.

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