



Job Description

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job.

Job title	HVAC Technician I/II
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GENERAL PURPOSE

Under immediate (HVAC Technician I) to general (HVAC Technician II) supervision, performs a wide variety of skilled tasks in the maintenance and repair of ventilation, heating, and air conditioning (HVAC) units installed in the District's buildings and facilities; plans, directs, and records periodic electrical testing, and recommends or initiates modification or replacement of equipment which fails to meet acceptable operating standards; and performs related duties, as assigned.

DISTINGUISHING CHARACTERISTICS

HVAC Technician I: This is the entry-level classification in the HVAC Technician series. Initially under close supervision, incumbents learn and perform routine installation, repair, and maintenance of ventilation, heating, and air conditioning systems. As experience is gained, assignments become more varied, complex, and difficult; close supervision and frequent review of work lessen as an incumbent demonstrates skill to perform the work independently. Positions at this level usually perform most of the duties required of the positions at the HVAC Technician I level but are not expected to function at the same skill level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise.

The HVAC Technician II: This is the fully qualified journey-level classification in the HVAC Technician series. Positions at this level are distinguished from the HVAC Technician II by the performance of the full range of duties as assigned, working independently, and exercising judgment and initiative. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit.

SUPERVISION RECEIVED AND EXERCISED

Receives immediate (HVAC Technician I) to general (HVAC Technician II) supervision from the Electrical Services Supervisor. Exercises no direct supervision over staff.

TYPICAL 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 position.

Positions at the HVAC Technician I level may perform some of these duties and responsibilities in a learning capacity.

- Performs a wide variety of skilled tasks in the maintenance and repair of ventilation, heating, and air conditioning (HVAC) units installed in the District's buildings and facilities.
- Sizes, orders and installs air conditioning and refrigeration equipment, including complete systems in new and existing District facilities; inspects air-conditioning and heating units to ensure efficient operation; tests performance of air and water systems to isolate problems and determine where adjustments are necessary.
- Assembles and maintains air conditioning control devices, solenoids, thermostats, pressure switches, temperature switches and other air conditioning related equipment and components.
- Retrofits equipment with appropriate refrigerants including the proper flushing and changing of oil as required.
- Plans, directs, and records periodic electrical testing, and recommends or initiates modification or replacement of equipment which fails to meet acceptable operating standards.
- Develops wiring diagrams and layout drawings for system or equipment modifications or expansion; installs and connects power supply wiring and conduit for newly installed machines and equipment; assembles and installs metal ductwork.
- Studies system blueprints, specifications, and performance data to determine configuration and purpose of system components such as motors, pumps, fans, switches, ducts, or pipes; inspects system to verify system compliance with specifications and to detect malfunctions in system component parts.
- Tests coils, armatures, stator, rotor and field coils for continuity, shorts, and grounds and insulation resistance; examines for broken or defective wiring.
- Diagnoses and replaces faulty mechanical, hydraulic, and pneumatic components of machines and equipment; diagnoses and repairs problems with pumps, including line shaft, centrifugal and submersible pumps; examines bearings, shafts, and other moving parts for excessive wear or defects; replaces defective motor bearings and motors.

- Gathers tools and supplies to be used at work site; maintains tools and equipment and keeps supplies and parts in order; cleans work area, machines, tools, and equipment.
- Inspects and observes pressure of liquids and vapor with instrumentation to ensure efficient operation of units and makes necessary adjustments.
- Inspects and services refrigeration equipment, including refrigerators, ice machines, gas packs, and heat pumps; maintains the chilled and hot water supply systems; adjusts and maintains internal electrical and electronic control systems.
- Maintains accurate maintenance records as required by Federal, State, and Local regulatory agencies.
- Troubleshoots and maintains all forced draft as well as natural draft boilers and hot water heating systems.
- Observes and complies with all District and mandated safety rules, regulations, and protocols.
- Performs related duties, as assigned.

REQUIRED QUALIFICATIONS

Positions at the HVAC Technician I level may exercise some of these knowledge and abilities statements in a learning capacity.

Knowledge of:

- Principles and practices of HVAC maintenance and repair.
- HVAC controls and safety devices.
- Computerized electrical circuits and systems as they relate to HVAC systems.
- Mechanical theory, practices, tools, and equipment.
- Materials and refrigerant recovery equipment and procedures used in installing, repairing, and maintaining HVAC systems.
- Operational characteristics of a variety of systems and equipment including direct expansion air conditioning, evaporative cooler, exhaust fans, electric and absorption chillers and chill water cooling system controls.
- Electrical codes and related ordinances and regulations.
- Principles and practices of water testing and treatment used in air conditioning and refrigeration equipment.
- Principles and practices in the installation, maintenance, and repair of commercial icemakers.
- Lock-out tag-out procedures.
- Use of appropriate Materials Safety Data sheets.
- Principles and practices of trades areas associated with HVAC systems such as sheet metal, electrical, plumbing, and carpentry.
- Principles and practices of record keeping.

- District and mandated safety rules, regulations, and protocols.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Analyze, diagnose, troubleshoot, inspect, install, maintain, and repair a variety of electrical and mechanical equipment.
- Interpret building codes and regulations as they relate to HVAC work assignments.
- Properly install refrigerant compressors.
- Effectively develop and plan jobs using appropriate cost control and scheduling methods.
- Work safely around energized electrical and mechanical equipment; use hand and power tools in a safe manner.
- Read and understand blueprints, diagrams, floor plans, manuals, and wiring diagrams of electrical and mechanical equipment.
- Maintain accurate logs, records, reports, and charts.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Experience:

Any combination of experience and education that provides the required knowledge and abilities is qualifying, along with the specific licenses/certifications as outlined below:

- HVAC Technician I: Two (2) years of HVAC maintenance and repair experience including one (1) year working with commercial systems.
- HVAC Technician II: Three (3) years of progressively responsible HVAC maintenance and repair experience; or one (1) year working in the District's HVAC Technician I classification.

Education:

- HVAC Technician I/II: Equivalent to completion of the twelfth (12th) grade, supplemented by completion of a four-year apprenticeship in HVAC maintenance and repair.

Licenses/Certifications:

- HVAC Technician I/II:
 - A valid California driver's license and the ability to maintain insurability under the District's Vehicle Insurance Policy.
 - Possession of an EPA Refrigerant Technician Type I and II certification at time of hire.
- HVAC Technician II: Possession of Universal EPA Refrigerant Technician certification.

PHYSICAL DEMANDS

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

Must possess mobility to work in the field; strength, stamina, and mobility to perform medium to heavy physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; color vision to identify wiring colors; frequently reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp and make repetitive hand movement in the performance of daily duties; possible entry into confined spaces and the use of confined entry equipment, to climb and descend ladders, to operate varied hand and power tools and construction equipment, and to operate a motor vehicle and visit various District sites; and vision to inspect and operate equipment. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards, which may include working on live electrical wires. Finger dexterity is needed to operate and repair tools and equipment. Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight of 25 pounds or heavier weights, in all cases with the use of proper equipment and/or assistance from other staff.

Employees must wear and use the proper Personal Protective Equipment (PPE).

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.

Employees work in the field and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, hazardous physical substances and fumes, dust and air contaminants. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

FLEX REQUIREMENTS

Positions in the HVAC Technician I/II class series are flexibly staffed; positions at the HVAC Technician II level are normally filled by advancement from the HVAC Technician I level; progression to the HVAC Technician II level is dependent on (i) management affirmation that the position is performing the full range of duties assigned to the classification; (ii) satisfactory work performance; (iii) the incumbent meeting the minimum qualifications for the classification including any licenses and certifications; and (iv) management approval for progression to the HVAC Technician II level.

Eastern Municipal Water District
Job Title: HVAC Technician I/II
Last Update: March 2020

This job description has been reviewed and approved by all levels of management in cooperation with the union (if applicable):

Approved by:	<i>Board of Directors</i>
Date adopted:	<i>March 29, 2020</i>
Date modified:	
FLSA determination:	<i>Non-Exempt</i>

Job Description Acknowledgment

I have received, reviewed and fully understand the job description for HVAC Technician I/II. I further understand that I am responsible for the satisfactory execution of the essential functions described therein, under any and all conditions as described.

Employee Name (print): _____ *Date:* _____

Employee Number: _____

Employee Signature: _____