



Water System Technician

DEFINITION

Under general supervision, investigates and performs skilled work in a variety of water system problems such as leak detection in pipelines, meters, valves, fittings and hydrants. Investigates and facilitates repairs for other water system problems; valve operation, pipeline breaks, water flow, pressure, and air or noise complaints, performs valve exercise and valve maintenance; and performs related work as required.

DISTINGUISHING CHARACTERISTICS

This is an advanced skill level position demonstrating proficiency in investigating consumer complaints, assessing water system breaks and leak detection incidents, performing valve exercise, demonstrating the ability to determine appropriate maintenance and repair action. An incumbent in this classification independently performs the full range of water system inspection duties both in routine and emergency conditions. Individuals work independently in the field, provide authoritative information on required water system maintenance and repairs and will have extensive contact with consumers and other District staff. This classification is under the supervision of the Field Supervisor.

EXAMPLES OF DUTIES

- Investigates residential and business consumer complaints related to leakage, seepage, pressure, flow and noise; determines whether flow and pressure problems are caused by consumer's plumbing system or deficiencies in the District's service lines or its meters; determines or provides appropriate repair or maintenance.
- Investigates meter leaks; determines appropriate repair or maintenance, replacement or relocation of meters and meter boxes.
- Inspects and researches suspected leaks in the water distribution system pipelines, valves, fittings and hydrants and determines extent of problem and recommends the personnel and materials required to complete the repairs or maintenance.
- Participates in the installation, repair and maintenance of pipelines, valves, fittings, hydrants and meters.
- Takes appropriate action to shut down the water system to isolate breaks and facilitates the repair or replacement of new connections.
- Performs flushes and plans and/or directs field personnel in routine, emergency and

systematic flushing of water mains; notifies consumers and local Fire agencies of planned system flushing; opens and closes main gate valve, blow-offs and hydrants by hand to accomplish flushing as required; monitors water quality, pressure, and runoff drainage visually and by gauge to determine adequacy of flushing.

- Operates leak detection equipment such as pipe locators, metal detectors, data loggers, correlators, and other leak detection equipment as needed.
- Utilizes District's water system maps and geographic information systems to locate water mains, valves, hydrants, meter boxes and other water distribution system equipment; remains current with water distribution system changes.
- Performs valve exercise by hand, and by using a hydraulic/electric valve exerciser. Prepares and follows routing for program efficiency.
- Maintain, operate, lubricate and mark location of water valves.
- Conducts hydrant flow tests; in support of field engineering studies, initiates and conducts pressure and flow levels in selected system of the distribution system; prepares reports of findings according to standard operating procedures and recommends corrective action as needed.
- Prepares written and/or makes verbal reports of field investigations, findings, recommendations and District work order requests; maintains accurate records of investigations, findings and repairs, documenting time, materials and equipment used.
- May train and direct the work of other assisting staff.
- May be assigned to a utility maintenance crew on a temporary basis.

QUALIFICATIONS FOR EMPLOYMENT

Knowledge of:

- Principles and practices of reading gauges or meters; plumbing methods; basic physical characteristics of water.
- Hydraulics related to piping systems used in water transmission and distribution systems; valves, fittings, appurtenances and appliances in industrial and residential plumbing.
- Operation of the distribution system including reservoir inlet/outlet valving and control piping.
- Procedures for flushing the distribution system; plumbing methods and codes.
- Workplace safety techniques applicable to confined space entry, traffic control and other industry related safe practices.

Ability to:

- Read, interpret and correctly apply appropriate codes, regulations and procedures.
- Use independent judgment and initiative.
- Read and interpret system maps to make sound judgments during valve operation.
- Understand and carry out written and oral instructions.
- Provide direction and accurate information to field support personnel.

- Make independent decisions impacting system maintenance and public health and safety.
- Investigate and resolve customer complaints and water distribution system problems.
- Keep accurate records and use personal computer to prepare clear, concise and complete reports and correspondence.
- Accurately read meters and gauges.
- Use a variety of leak detection, pipe location and related tools and equipment.
- Guide and direct the training and work of less experienced staff as assigned.
- Drive a vehicle and travel to off-site work locations.

Training and Experience:

Any combination of training and experience equivalent to:

- Completion of the twelfth grade or its equivalent; and,
- Four years of experience of inspection or maintenance of water systems which have provided a knowledge of piping systems, hydraulics and distribution system principles.

LICENSES AND/OR CERTIFICATIONS

- Possession of an appropriate California driver's license issued by the State Department of Motor Vehicles and satisfactory driving record.
- Possession of a Distribution Operator certificate (D1) issued by the California State Water Resources Control Board (SWRCB).

OTHER REQUIREMENTS

- Per California Government Code, Title 1, Division 4, Chapter 8, Section 3100 "all public employees are hereby declared to be disaster service workers subject to such disaster service activities as may be assigned to them by their superiors or by law."
- Must remain available for after-hours emergency work on an on-call basis.
- Must work irregular shifts outside regular work hours and during "off" hours including holidays and weekends.
- Willingness to wear appropriate uniform.

PHYSICAL DEMANDS AND WORKING CONDITIONS

During the course of performing job duties the employee will perform heavy physical work and will need the mobility to operate equipment, which may include office and/or field equipment, or specialized instruments or tools requiring repetitive arm/hand movement and/or the coordinated movement of more than one limb simultaneously; enter and retrieve data from personal computers and terminals via keyboards. The employee frequently stands, walks, bends at neck and waists, twists at neck and waist, uses simple and power grasping with both hands, uses fine manipulation of both hands and fingers, and may require use of the arms

above the shoulder, climb or balance; stoop, kneel or crouch. While working in the field the employee may walk on uneven or un-level ground surfaces such as hills, slopes, ditches or trenches, on or in tanks, and may work at heights up to ten to twelve feet climbing ladders or stairs. The employee is frequently required to lift and carry short distances objects such as materials or equipment weighing up to 10 to 50 pounds and occasionally lift 50 to 75 pounds. This position requires that the employee demonstrate adequate hearing to detect sound using sonic leak detection equipment, warning alarms and speech to converse in person and over the telephone or radio, and vision to read printed materials and detect color-coded materials, and use a computer screen. In order to drive, individuals must be physically capable of operating the vehicles and equipment safely.

The noise level in the work environment is moderate to loud noise. The employee is exposed to moving vehicles and other moving equipment and machinery, excessive noise, extremes in temperature, humidity, wetness and dust. The position may require the ability to work overtime and weekends as needed.

Employees who drive on District business to carry out job-related duties must possess a California driver's license for the class of vehicle driven and meet automobile insurability requirements of the District including review of a recent DMV history. In order to drive, individuals must be physically capable of operating the vehicles and equipment safely.

ADDITIONAL PHYSICAL DEMANDS

A self-contained breathing apparatus may be worn when working in confined spaces and employee must be capable of obtaining and maintaining a proper facial seal for District respiratory equipment.

To be successful in this job, an individual must be able to satisfactorily perform each of the listed duties. These duties are representative of the knowledge, skill and/or ability required for the position. Reasonable accommodations may be made to enable individuals with disabilities to perform the duties and functions of the position. Requests for reasonable accommodation should be directed to the Human Resources Manager.

Established: October 2007
Revised: October 2008, July 2025, September 2025
Approved by: Human Resources Manager