



Utility Technician I/II/III

DEFINITION

Under general supervision (Utility Technician I) or direction (Utility Technician II and III), perform a variety of duties involved in the operation and maintenance of wastewater treatment process and collection system, storm water system, industrial pretreatment, and water distribution facilities and equipment.

DISTINGUISHING CHARACTERISTICS

Utility Technician I - This is the entry level in the class series. Positions at this level usually perform most of the duties required of the positions at the II 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. Since this class is often used as a training class, employees may have only limited or no directly related work experience.

Utility Technician II and III - These are the full journey and advanced journey levels in the class series. Positions at the II and III levels are distinguished from the I level by the performance of the full range of duties as assigned, working independently and exercising judgment and initiative. Positions at the II and III levels 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. Positions in this class series are flexibly staffed and positions at the II level are normally filled by advancement from the I level requiring three years of experience and successful performance. Positions at the III level are normally filled by advancement from the II level requiring three additional years of experience and successful performance. When filled from the outside, the employee is required to have prior related experience which allows the employee to meet the qualification standards for the II and III levels.

SUPERVISION RECEIVED

Reports to the ranking Utility Technician, the Utility Technician Crew Leader, or the Utility Manager.

SUPERVISION EXERCISED

Utility Technician I

Exercises no supervision.

Utility Technician II and III

May exercise technical and functional supervision over lower level staff.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

Observe and adjust electrical control boards, meters, pumps, and related equipment; observe and record weather conditions; observe and record flow data; read and record gauge information; conduct visual inspections of working apparatus and grounds.

Operate, maintain, and adjust pumps, blowers, screening devices, valves, standby generators, electrical control devices, electronic pressure switches, air compressors, and testing equipment; perform repairs, adjustments, and major overhauls on equipment.

Draw samples for laboratory test and analysis; make chemical and bacteriological analysis of samples; perform quality assurance analysis; operate and maintain laboratory analytical equipment; keep current on changes to the standard methods and procedures.

Maintain and repair manholes and catch basins; clean, maintain, and repair sewer lines and storm lines; recommend lines for replacement.

Operate tele-inspection unit in underground utilities; operate light to heavy equipment including pickup truck, vacuum/jet truck unit, dump truck, loader, backhoe, skid loader, and forklift; clean, maintain, and make repairs to equipment.

Perform inspections of Public Works utility construction and repair; provide information to builders and contractors regarding requirements of specifications and plans.

Assist in administering the industrial pretreatment program and liquid waste management program; investigate chemical and hazardous waste spills which may have entered the wastewater collection system or the storm drainage system.

Perform custodial work in the cleaning of Utility Division equipment and facilities including main sanitary lines, sanitary and storm lift stations, treatment process equipment, office, and shop areas.

Tap water mains.

Assist in a variety of activities including: ensuring that meter appointments are kept and completed in a timely manner; irrigation meter installation and removal; delinquent accounts; water locates on main lines and service lines; curbstop maintenance; and valve maintenance.

Check operation of and perform maintenance as needed on valves and fire hydrants; check fire hydrants for proper drainage to prevent freezing.

Clear filled valve boxes; locate and record main, valve, and hydrant locations, sizes, and related information.

Turn water service on and off; maintain and repair water meters; perform water meter testing.

Install shoring in ditches excavated and barricades and other safety devices around work locations.

Update and correct system maps and records as errors are found.

Perform, oversee, and instruct subordinates on maintenance, repairs, and operations of all facilities, including pumping stations, water storage reservoirs, meters, fire hydrants, pressure reducing valves, and pump control valves.

Maintain liaison with Utility Manager, crew leader, and other technicians to ensure work performance and scheduling are adequate and that proper safety and regulatory standards are met.

Troubleshoot various problems within the water system including electrical, mechanical, and water hydraulics.

Assist in preparing specifications and bids for new equipment.

Perform and coordinate service, repair, and maintenance of mechanical, electrical, electronic, and telemetry systems.

Assist in ensuring that regulatory standards and schedules are met regarding regulatory agencies including EPA, DEQ, and OSHA.

Implement maintenance and preventive maintenance programs for pumping stations, pressure reducing valves, fire hydrants, waterlines, and water storage facilities.

Assist other departments in maintenance, repair, and construction, as assigned.

Handle complaints from citizens, business owners, and industrial sites.

Attend classes and training to gain new knowledge and to retain current certification.

OTHER JOB RELATED DUTIES

Perform related duties and responsibilities as assigned.

ESSENTIAL JOB RELATED QUALIFICATIONS

Utility Technician I

Knowledge of:

Care, maintenance, and repair of mechanical equipment including pumps, valves, and electric motors.

Uses, purposes, and operating characteristics of tools, equipment, and heavy motorized equipment.

Tools and equipment used in repair work.

Basic principles of recordkeeping.

Basic mathematical principles.

Safe driving principles and practices.

Skill to:

Learn to operate a wide variety of equipment and tools used in wastewater treatment plant, collection, drainage, lab, pretreatment, and water distribution system in a safe and effective manner.

Perform manual labor for extended periods of time in all types of weather.

Operate a motor vehicle safely.

Ability to:

Learn operational characteristics of specialized wastewater treatment, collection, drainage, lab, pretreatment, and water distribution equipment.

Learn materials, methods, and practices used in the operation of wastewater treatment facilities and equipment.

Learn to read meters and gauges correctly.

Learn policies and operating routines of the wastewater treatment, collection, drainage, lab, pretreatment facilities, and water distribution system.

Learn the fundamentals of laboratory analysis, interpretation, and calculations.

Learn occupational hazards and standard safety precautions necessary in wastewater treatment plant and water distribution operations.

Learn pertinent federal, state, and local laws, codes, and regulations.

Learn regulatory standards including (EPA) Phase 5, Lead and Copper and Bacteriological Monitoring Requirements, (DEQ) Chapter 5 Certification Rules and Regulations, and Chapter 12 Configuration and Construction Rules and Regulations.

Learn operational characteristics of water distribution systems and specialized water distribution system maintenance equipment.

Learn the materials, methods, practices, and equipment used in water distribution system maintenance and repair.

Learn to read, interpret, and apply technical information from manuals, drawings, specifications, layouts, blueprints, and schematics.

Learn applied hydraulics for water systems; waterworks standards and nomenclatures for meters, pumps, pump components, piping, PRVs, and hydrants.

Learn pump mechanics.

Make routine repairs and adjustments to motors, pumps, and other equipment.

Prepare and maintain accurate and complete records.

Perform accurate mathematical calculations.

Understand and follow oral and written instructions.

Communicate clearly and concisely, both orally and in writing.

Establish, maintain, and foster positive and harmonious working relationships with those contacted in the course of work.

MINIMUM QUALIFICATIONS

Experience:

Some experience in the operation of hydraulic pumps, valves, gasoline powered engines, and motors.

Training:

Equivalent to a high school diploma.

License or Certificate:

Possession of, or ability to obtain within six months of hire, a commercial driver's license with tanker endorsement.

Possession of, or ability to obtain within one year, a Level I Wastewater Treatment Plant Operator's Certificate.

Possession of, or ability to obtain within one year, a Level I Collection System Maintenance Certificate.

Possession of, or ability to obtain within one year, a Level I Water System Operator's Certificate.

Possession of, or ability to obtain within one year, a Level I Water Distribution Certificate.

Possession of, or ability to obtain within one year, First Aid and CPR Certificates.

Possession of, or ability to obtain within one year, a Trench Shoring Certificate.

Possession of, or ability to obtain within one year, a HAZMAT Awareness Certificate.

Possession of, or ability to obtain within one year, a Forklift Certificate.

SPECIAL REQUIREMENTS

Essential duties require the following physical skills and work environment:

Ability to sit, stand, walk, kneel, crouch, stoop, squat, crawl, twist, climb, and lift 75 lbs., exposure to cold, heat, noise, outdoors, chemicals, mechanical hazards, electrical hazards, toxic substances, foul odors, wastewater, sludge, effluents, bacteria, viruses, and traffic hazards; ability to travel to different sites and locations; availability for on-call, standby, and emergency call.

Utility Technician II and III

In addition to the qualifications for Utility Technician I:

Knowledge of:

Operating characteristics of mechanical and electrical systems.

Operational characteristics of specialized wastewater treatment, disposal system, lab, drainage, pretreatment equipment, and water distribution system.

Pertinent federal, state, and local laws, codes, and regulations related to the Utility Division.

Materials, methods, and practices used in the operation of wastewater treatment, lab, drainage, pretreatment facilities, and water distribution system and equipment.

Safe work practices around gases, electricity, and chemicals.

Occupational hazards and standard safety precautions necessary in wastewater treatment plant, collection, drainage, lab, pretreatment, and water distribution operations.

Policies and operating routines of the wastewater treatment, collection, drainage, lab, pretreatment, and water facilities.

Fundamentals of laboratory analysis, interpretation, and calculations.

Principles and practices of pump mechanics.

Regulatory standards including (EPA) Phase 5, Lead and Copper and Bacteriological Monitoring Requirements, (DEQ) Chapter 5 Certification Rules and Regulations, and Chapter 12 Configuration and Construction Rules and Regulations.

Applied hydraulics for water systems; waterworks standards and nomenclatures for meters, pumps, pump components, piping, PRVs, and hydrants.

Skill to:

Operate a wide variety of equipment and tools used in wastewater treatment plant, collection, drainage, lab, pretreatment, and water distribution in a safe and effective manner.

Ability to:

Read meters and gauges correctly and to act quickly and competently.

Collect samples and perform routine laboratory tests.

Make accurate inspections of operating equipment, assess the condition of wastewater from visual inspection, and identify problems.

Perform wastewater treatment plant operations and water distribution system work with accuracy, speed, and minimal supervision.

Read, interpret, and apply technical information from manuals, drawings, specifications, layouts, blueprints, and schematics.

Interpret and apply policies, procedures, laws, codes, and regulations pertaining to Utility Division programs and functions.

Estimate staffing needs and materials for assigned projects.

MINIMUM QUALIFICATIONS

Experience:

Utility Technician II

Three years of experience as a Utility Technician I.

Utility Technician III

Three years of experience as a Utility Technician II.

Training:

Equivalent to a high school diploma supplemented by training in wastewater treatment, collection, drainage, lab, pretreatment, and water distribution.

License or Certificate:

Utility Technician II

Possession of a commercial driver's license with tanker endorsement.

Possession of a Level II Wastewater Treatment Plant Operator's Certificate.

Possession of a Level II Collection System Maintenance Certificate.

Possession of a Level I Water System Operator's Certificate.

Possession of a Level II Water Distribution Certificate.

Possession of a Trench Shoring Certificate.

Possession of a HAZMAT Awareness Certificate.

Possession of First Aid and CPR Certificates.

Possession of a Forklift Certificate.

Ability to obtain a Commercial Pesticide License.

Utility Technician III

Possession of a commercial driver's license with tanker endorsement.

Possession of a Level III Wastewater Treatment Plant Operator's Certificate.

Possession of a Level II Collection System Maintenance Certificate.

Possession of a Level I Water System Operator's Certificate.

Possession of a Level II Water Distribution Certificate.

- Possession of a Commercial Pesticide License.
- Possession of a Trench Shoring Certificate.
- Possession of a HAZMAT Awareness Certificate.
- Possession of First Aid and CPR Certificates.
- Possession of a Forklift Certificate.

SPECIAL REQUIREMENTS

Essential duties require the following physical skills and work environment:

Ability to sit, stand, walk, kneel, crouch, stoop, squat, crawl, twist, climb, and lift 75 lbs., exposure to cold, heat, noise, outdoors, chemicals, mechanical hazards, electrical hazards, toxic substances, foul odors, wastewater, sludge, effluents, bacteria, viruses, and traffic hazards; ability to travel to different sites and locations; availability for on-call, standby, and emergency call.

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