

City of Redmond**Classification Description**

Job Title: Utility Systems Technician	Reports to: Public Works Maintenance and Operations Supervisor
Former Job Title: Pump Station Technician	Department/Division: Public Works /MOC
Union: Yes	Bargaining Unit: AFCSME
Supervisory: No	FLSA: Non-Exempt
Date Reviewed: 2012	EEO:

Summary

Utility Systems Technician's provide efficient daily operation, maintenance, troubleshooting and repair of the City's drinking water distribution/production, wastewater collection and stormwater facilities. This includes emergency generators, sewage pump stations, stormwater treatment systems, drinking water wells, reservoirs, booster stations, irrigation systems, security systems and related water, stormwater and wastewater treatment systems, buildings and facilities. Employees in this class are responsible for the maintenance, operation, and repair of the electrical components, controls, switchgear and instrumentation, programming including SCADA telemetry software and hardware systems. Must be able to assume responsibility for responding to emergencies 24hrs/day on a rotation basis.

Essential Duties and Responsibilities

- Operate, setup, repair and troubleshoot electrical systems, pumping equipment, motors, power systems, Supervisory Control and Data Acquisition (SCADA) telemetry systems, Human-Machine Interfaces (HMIs) and Programmable Logic Controllers (PLC), instrumentation
- Perform preventive maintenance, repair and troubleshoot on electrical motors, electrical control panels, pump controllers, level sensors, motor control centers, motor starters, telemetry system, HVAC, programmable logic controllers, facility and building components
- Prepare, track and maintain records of all issues, warranties, maintenance, repairs and upgrades
- Maintain and repair related buildings, facilities and grounds
- Maintain a comprehensive computer based preventive maintenance management system for developing, analyzing, scheduling and tracking work orders, equipment history and equipment replacements
- Review related construction plans and provide technical support to the engineering department and construction inspection staff when needed
- Develop and maintain effective, efficient working relationships with City departments, division, and other governmental agencies, businesses and contractors, suppliers and consultants
- Develop preventative maintenance schedules and standards
- Train assigned employees on principles of maintenance and repair methods, techniques and in the set up and use of equipment
- Serve as a first responder for pump station outages, assess cause of problem and

develop a response/repair course of action to reestablish utility services

- Inform management of system status, needs and requirements
- Additional duties may be assigned

Qualifications

- Knowledge of and Skills in

- Principles and theories of electricity, hydraulics, and mechanics including high and low voltage circuits
- Industrial plant maintenance of electrics, hydraulics, programmable logic controllers, plumbing, and HVAC
- Methods, materials and techniques commonly used in the maintenance, repair and operation of electro/mechanical and instrumentation equipment and systems associated with industrial process control of water and wastewater treatment plants
- Instrumentation and control, SCADA, HMI systems, PLC programming and field devices
- Functions and installation of a wide variety of electrical equipment used in generators, transformers, breakers, motors, pumps, and related equipment and control systems
- A/C D/C power control and signal circuitry with emphasis on process measurement and instrumentation
- Wireless ethernet telemetry systems including radio modems, antenna's and related equipment
- System operations including repair or replacement of valves, pipe and pumps and service line connections
- Proper distribution system disinfection practices, flow testing and maintenance of system components
- Related processes, equipment, and common causes of failure
- Pumps of all types, their characteristics, and maintenance requirements
- Electric motors, controls and maintenance requirements
- Electronics and computers used in SCADA and maintenance requirements
- Knowledge and skill utilizing monitoring, treatment and sampling equipment
- MSDS information related to chemicals and products used in the operation, repair and maintenance of water.
- Building and grounds maintenance and repair
- Effectively managing workload and responsibilities
- Facilitating cooperation, trust and integrity with all customers and staff

- Abilities to

- Work independently with limited supervision
- Operate a computer and software such as SCADA systems and related technology
- Operate, maintain and troubleshoot electrical, hydraulics, programmable logic controllers, plumbing, HVAC
- Maintain, troubleshoot and repair a variety of industrial equipment related to hydraulics, power distribution and transfer, chemical feed systems, pumps, emergency power generation, telemetry, HVAC, building maintenance, irrigation

systems, and related systems found in sanitary and water stations

- Understand, read and interpret sketches, schematics, diagrams, ladder diagrams, blueprints, and technical manuals and effectively use this information to identify malfunctions, and repair and replace defective parts and subassemblies.
- Effectively communicate with City staff, and customers about problems
- Provide excellent customer service
- Exercise sound judgment and effectively problem solve
- Follow policies, procedures to ensure tasks and equipment are operated safely
- Demonstrate a positive attitude and be an effective team player
- Demonstrate a high level of initiative, effort and commitment
- Remain flexible and make sudden scheduling changes based on changing priorities
- Establish and maintain effective working relationships with fellow employees and the general public
- Investigate problems or concerns from customers
- Understand and follow verbal and written instructions

- Physical Abilities and Working Conditions

Work is performed both indoors and outdoors. Outdoor work can expose the employee to seasonal heat and cold or adverse weather conditions, traffic, dust, noise, confined spaces, chemicals, and physical hazards from mechanical and electrical equipment and requires climbing, reaching, grabbing, bending, stooping, kneeling and crawling; ability to maneuver on uneven terrain; exerting up to 50 pounds of force and lift and carry 70+/- pounds of equipment and/or materials at job sites; indoor work consists of using a computer. Able to ascend or descend ladders, stairs, ramps, etc. using feet, legs, hands and arms. Drives a city vehicle to conduct work.

- Education and Experience

- High School Diploma or equivalency and a minimum of three (3) years of experience in operation, maintenance and repair of industrial facilities in any of the following areas: industrial process control systems, distribution, collection and treatment systems, pump stations, industrial treatment plants, electrical/power generating plants or three (3) years of journey level experience in water system operation and maintenance
- two (2) years of college course work in industrial plant maintenance, electrical, hydraulics, programmable logic controllers, or similar desirable
- or any satisfactory combination of experience and training that demonstrates possession of the required knowledge, abilities and skills.

- Licenses and Certificates

- Valid Washington State Driver's License and a driving record that meets city standards; remain insurable by the City
- CDL Class A
- Confined Space Entry and Attendant Certification
- Washington State Department of Transportation Traffic Flagging Certification
- First Aid/CPR card
- Water Distribution Manager II or III or Water Treatment Plant Operator Certification with Department of Health (desirable within 1 year of hire)

Utility Systems Technician

- Valid Cross Connection Control Certification (required within 1 year of hire)
- Washington Wastewater Collections Personnel Association WWCPA Level 1 or 2 (desirable within 1 year of hire)

This class description describes the general nature of the work performed, representative duties as well as the typical qualifications needed for acceptable performance. It is not intended to be a complete list of all responsibilities, duties, and skills required of the job.