



City of Lake Oswego, Oregon

Job Description

INSTRUMENTATION TECHNICIAN II

FLSA Status: Non-exempt

Salary Grade: 167

Union Representation: LOMEA

Job Code: 4059

Class Summary

Under supervision of the Water Treatment Plant Manager or Assistant Manager, the principal function of an employee in this classification is to perform skilled level activities in support of water treatment, plant maintenance, and operations. Responsibilities, as assigned, may include designing, building, installing, and maintaining the control and data collection equipment for the Water Plant and related facilities; equipment maintenance; and development of reports and updating procedures.

Essential Duties and Responsibilities

The list of duties is a representative sample of the work appropriate to this class and does not include all the duties that may be assigned to a particular position. The incumbent may perform a combination of some or all of the following duties:

- Performs skilled level work in support of water treatment and maintenance services; installs, repairs and maintains parts and equipment; replaces or redesigns system equipment; to ensure standard levels and quality of water services are maintained.
- Maintains, monitors, and troubleshoots equipment, tools and/or instruments; performs inspections and quality checks; performs calibrations; maintains cleanliness of assigned area and equipment; addresses and/or reports issues requiring further attention. Identifies opportunities for improvement in processes and makes recommendations.
- Prepares and maintains various reports, worksheets, plans, correspondence, graphs and work orders; enters data in systems; reviews documents and data input for accuracy and integrity. Responds to and resolves complaints or issues. Provides information and/or training and education related to support area.
- Monitors supply, parts and equipment inventory levels and ensures adequate resources. Initiates requisitions, tracks purchases and inventory; receives orders; ships materials; and ensures quality of materials or equipment upon receipt. Schedules and coordinates warranty repair work.
- Manage records and information in any format, in accordance with applicable statutes, regulations and City policy, guidance and records retention schedule.
- Performs other duties of a similar nature and level.
- Actively participates in the implementation of new construction projects, including design review, submittal reviews, inspection, commissioning, documentation, training, and warranty. This work includes coordinating with Lake Oswego and Tigard personnel as well as outside contractors and organizations.

- Install instrumentation from engineering and electrical drawings; prepare schematics and reports to reflect changes or alteration made in equipment, circuit and systems.
- Lead the work of other personnel assigned to large and/or complex electrical/electronic projects; check work for compliance with electrical codes and City of Lake Oswego standards; provide feedback to supervisor as necessary.
- Takes a lead role in the utilization of the WTP's Computer Maintenance Management System (CMMS). This includes creating and closing work orders as well as creating and managing maintenance schedules. It also includes managing assets in the CMMS including creating and deleting assets as needed.
- Ability to maintain and develop the WTP SCADA system. This includes modifying SCADA programming to display new or changed information. Modifies control strategies imbedded in the SCADA program.
- Leads training for all WTP personnel in the area of Cybersecurity as it relates to the WTP's OT network.
- Performs regular, scheduled, audits using the AWWA Cybersecurity Tool.
- Assists in WTP Operations network administration including maintaining network security, configuring new systems, and setting up and maintaining backup files for all instrumentation, SCADA, and related assets.
- Monitors all servers, PLCs, HMIs, and related computer equipment for operational issues and keeps all hardware and software current with patching and updates.

Minimum Qualifications

Knowledge of:

- Local, state and federal standards, laws and regulations related to water treatment.
- OR-OSHA safety rules relating to maintenance and repair of equipment and electrical/instrumentation systems typically found in the water industry.
- Industrial process control, water system control strategies, data acquisition software and hardware, associated field instrumentation and remote communication telemetry.
- Programmable Logic Controllers (PLC) and SCADA system programming languages.
- Remote I/O communication via Ethernet or radio modems.
- Maintaining and repairing electronic equipment including the use and care of field instrumentation, test equipment, other common tools and equipment used for SCADA.
- Preventative maintenance of Water Treatment Facility equipment including diagnostic testing, lubrication and coatings.
- Math, algebra.
- Supervisory Control and Data Acquisition systems used in the water treatment and distribution industry.
- Personal computers including file management and report development using various software programs including MS Word, Excel, and Access.
- Electronic, hydraulic, pneumatic, and mechanical theory and practices for installation, maintenance, troubleshooting and repair of process control instrumentation.
- The National Electric Code (NEC) and State and local electrical codes.
- Cybersecurity and Infrastructure Security Agency (CISA) training

Skills and Abilities to:

- Perform equipment diagnosis to identify appropriate maintenance and repair;
- Interpret and apply applicable laws, codes, regulations and standards;
- Perform skilled level repair and maintenance of applicable systems and equipment;
- Monitor and maintain supplies inventory;

- Program, troubleshoot and formulate solutions for the integration of PLCs and the Control (SCADA) system making corrective actions or implementing changes using Wonder Ware software;
- Identify and evaluate hardware and software needs and applications requirements;
- Understand and interpret technical, complex documents, system maps, design drawings, diagrams and schematics and other documentation related to the water system and instrument and control systems.
- Utilize HART protocol to manage instruments.
- Provide good customer service.
- Comply with safety requirements of the position and actively promote safe work practices.
- Communicate effectively with coworkers, management, elected officials and the general public, and display excellent interpersonal skills and awareness of controversial and/or sensitive issues.

Education, Training and Experience:

A typical way of obtaining the knowledge, skills and abilities outlined above is with an Associate's Degree and five years in a related field; or, an equivalent combination of education and experience enabling the incumbent to perform the essential duties of the position.

Licensing and Other Requirements:

Positions in this classification are required to possess a valid driver's license and ability to meet the City's driving standards.

The following certifications and/or licenses is preferred:

- Limited Maintenance Electrician (LME) or greater.
- Low Voltage Licensure
- Certifications in relevant technical technologies, such as CISA or AWWA or equivalent certifications/training in cybersecurity and networking.

Duties will occasionally involve working in adverse or inclement weather conditions; exposure to high noise levels; dealing with distraught or difficult individuals; attending meetings or activities outside normal working hours; occasional response to emergency conditions during off - hours; occasional operation of a motor vehicle on public roads

Physical and Mental Demands

Frequent repetitive motions including, but are not limited to, hand, wrist and finger movements; daily walking, reaching, standing, talking, hearing and seeing. Heavy Physical Work: Must be able to move objects by exerting up to (50) pounds of force occasionally and/or up to (20) pounds of force frequently, and/or up to (10) pounds of force consistently.

May be required to stand for long periods of time, up to full length of shift; walk over rough terrain, up and down inclines, stairs, on paved and unpaved surfaces, and over long distances.

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depend, in part, on the specific requirements for the job, the limitations related to disability and the ability of the hiring department to accommodate the limitation.

Human Resources Director

Date

Employee

Date

This job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.