**Class Summary**

The responsibilities of this classification include performing a wide variety of highly skilled technical journey-level duties to maintain, troubleshoot, and modify computerized systems, electrical, electronics, pneumatics, hydraulics, and related instrumentation, including installing, integrating/programming, maintaining, and repairing Supervisory Control and Data Acquisition (SCADA) communications systems, Distributed Control Systems (DCS), components, Programmable Logic Controller (PLC), Proportional Integral Derivative (PID) control loops, and equipment throughout wastewater systems and facilities.

**Distinguishing Characteristics**

This is a single-level classification. Incumbents in this classification apply journey-level knowledge and experience to perform instrumentation and other process-related duties in an industrial environment as a Control Systems Technician, including day-to-day activities that cover all aspects of instrument and control systems at wastewater collection, treatment, and offsite facilities.

**Examples of Duties**

1. Troubleshoot, repair, calibrate, and maintain all plant computer, electronic, pneumatic, and hydraulic instrumentation control and monitoring systems.
2. Perform installation, preventative maintenance, modifications, upgrades, analysis, and diagnostics on DCS, SCADA, PLCs, SLCs, and HMIs telemetry and networking with proprietary protocols. Apply electronic theory, digital electronics, and proportional integral derivative (PID) control strategies.
3. Work with operations personnel, engineers, and suppliers to explain the function of processes and procedures needed to operate and/or integrate new equipment.
4. Make recommendations on purchasing and inventory requirements for all instrument-related equipment and determine the appropriate spare parts inventory for instrumentation.
5. Review or modify shop drawings and process documentation to conform with established plant standards. Assist in inspecting instrumentation installed by contractors. Witness and assess loop commission testing.
6. Provide on-the-job training for assigned instrument staff.
7. Maintain process and environmental analyzers to meet permit and regulatory/compliance.
8. Perform software and system maintenance on various system databases.
9. Provide specialized reports on network systems and equipment availability.
10. Develop and administer specialized databases in support of process operations.
11. Record and document maintenance and diagnostic data.
12. Access logs and troubleshoot problems associated with related equipment.
13. Work with other trades, contractors, and operating sections as needed.
14. Operate assigned vehicles, including aerial lift equipment.
15. Prioritize tasks in the absence of on-site supervision.
16. Perform other duties as assigned.

**Knowledge/Skills**

Knowledge of physics and chemistry techniques and principles

Knowledge of mathematical techniques and principles, including algebra, trigonometry, geometry, and calculus

Knowledge of Proportional Integral Derivative (PID) control loops

Skill in using calibration/test equipment for troubleshooting and validating instrumentation

Knowledge of industrial safety standards and techniques

Knowledge of the Instrument Society of America (ISA) standards

Ability to lift and carry equipment weighing up to 50 pounds

Ability to work in confined spaces, climb in and out of tanks using ladders, and work around noxious odors and high noise levels

Ability to work all shift schedules and to report to work during adverse and inclement weather conditions

Ability to effectively engage in and sustain relationships with people from diverse cultures and socio-economic backgrounds

Ability to work independently and as a team member

Demonstrated proficiency with business applications, such as Microsoft Office suite

**Education and Experience Requirements**

Any combination of education and experience that clearly demonstrates the ability to perform the job duties of the position

**Licensing, Certification and Other Requirements**

Washington State Driver’s License

Demonstrated work experience (three years) in a journey-level industrial instrumentation or related field

Some licenses, certifications and other requirements determined to be necessary to meet the business needs of the employing unit may be required

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| **FLSA Designation** | Non-Exempt |
| **Service Status** | Career Service |
| **EEO Code** | 7 |
| **Levels within same series** | None |
| **Class History** | 09/2006 – Created  07/2007 – Updated font and format  10/2008 – Updated  03/2010 – Updated  03/2025 – Updated title and content |