



## CITY OF POCATELLO CLASSIFICATION SPECIFICATION

### ***WPC Instrumentation and Programming Specialist***

Department: Water Pollution Control

Reports to: WPC Superintendent

Pay Grade: H12

Date Established: 9/2016

Date Revised: 8/2018

FLSA Status: Non-Exempt

#### **CLASSIFICATION SUMMARY**

The WPC Instrumentation and Programming Specialist performs a variety of professional, technical and analytical duties involving conceptualization, design, development, testing, implementation and maintenance of software applications that provide technology-based solutions. The job analyzes plant processes and identifies technology-based solutions to issues of a non-routine nature; completes user work requests or specific projects requiring a moderate to high level of detail and complexity.

The position uses independent judgment drawing on previous experience and education to identify and implement solutions to non-routine problems. The job requires knowledge of different programs, such as CLEARSCADA, RSLinx, RSLogix 500, RS Studio 5000, Factorytalk View Studio and programming languages such as Structured Text, Ladder Logic, Function Block and SQL. Functional knowledge of software such as Crystal Reports, MS Word and Excel, Acrobat Professional.

The job requires knowledge of all operational aspects of electrical monitoring, control, communication and alarm systems in the WPC treatment plant and in pumping and lift stations. The job requires the ability to maintain a collaborative and cooperative working relationship with all WPC Supervisors, elected and appointed officials, other City employees, other organizations and the general public.

The work environment includes a wastewater treatment building that may include exposure to hazardous chemicals, wastewater treatment equipment, noisy and/or loud equipment, working in adverse weather conditions and hazards involving the use of power tools and equipment which subjects the employee to mechanical and electrical hazards. The job requires operating power tools and operating a vehicle.

The job is subject to call-out, responding to emergency situations at any hour, including nights, weekends and holidays.

#### **ESSENTIAL DUTIES AND RESPONSIBILITIES *(illustrative only and may vary by assignment)***

Develops new programs and control systems to solve plant and lift station program and process issues; upgrades existing systems and software to increase efficiency and effectiveness using modern programming techniques; installs, maintains, repairs, modifies and expands existing programs, including electrical monitoring, control, communication and alarm systems in the WPC treatment plant and in pumping and lift stations.

Maintains and installs WPC systems and operations including SCADA server maintenance, telephone/data communication systems, network administration and specialized software maintenance.

Writes programs allowing WPC to interface with SCADA and PLC systems and fixes day-to-day software and hardware problems and issues, conducts problem research and assists in correcting computer mistakes.

Tunes control loops to enable processes to run automatically with little operator oversight.

Performs internal energy audits & develops new systems to improve plant efficiency. Works independently on specific projects and upgrades. Obtains quotes and purchases equipment for projects, maintenance, and developmental purposes.

Transfers data between systems; converts City reports to PDF format for storage on various forms of media for federally mandated reporting purposes.

Develops programs for computer system operations, management, database management, program management and system support.

Researches, creates, modifies and installs programs for WPC.

Maintains records, logs and documents of installations, upgrades, repairs and system operations.

Trains employees in the use of monitoring and control systems, network systems, and other related activities.

Assists with building electrical, plumbing and mechanical maintenance.

Performs other duties as assigned. Nothing in this job description restricts management's right to assign or reassign duties and responsibilities to this position at any time.

### **CLASSIFICATION REQUIREMENTS**

The requirements listed below are representative of the minimum knowledge, skill, and/or ability required for an individual to satisfactorily perform each essential duty satisfactorily and be successful in the position.

#### **Knowledge of:**

- Design and development, installation, programming, integration, operation, inspection, maintenance, repair, and upgrading of electrical monitoring, control, communication and alarm systems in the WPC treatment plant and in pumping and lift stations;
- Methods and techniques of computer program analysis, writing and modification;
- Methods and techniques of installing, maintaining, and upgrading SCADA servers, PLC's, variable frequency drives, programs, and other information technology systems;
- Methods and techniques of performing scheduled system upgrades;
- Methods and techniques of troubleshooting and performing repairs on equipment;
- Methods and techniques of maintaining system security, including virus, malware, and cyber-physical protection.
- Building trade skills including, but not limited to, electrical, carpentry and plumbing;
- Federal regulations and City policies regarding safe work practices relating to use of power tools, hand tools, ladders and power lifts and repair and maintenance materials;
- State, local, and other applicable building, safety and health codes and regulations.

#### **Skill and Ability to:**

- Lead others in maintenance projects and upgrades;
- Design, develop, install, program, maintain, inspect, repair, and upgrade the following: digital monitoring systems, electrical controls, HMIs, SCADA servers, alarm systems, networking equipment, PLCs, microcontrollers, and VFDs in the WPC treatment plant and in pumping and lift stations;
- Analyze, write and modify computer programming and software;
- Install & program networking equipment such as modems, routers, and switches;
- Protect plant and collections networks from cyber-physical attacks through security protocol implementation;
- Determine technology needs of departments and individuals and resolve them;
- Use computer programming languages including, but not limited to Structured Text, Function Block, Ladder Logic, SQL, Visual Basic, HTML and other required programs;
- Install, maintain, and upgrade desktops, laptops and tablets;
- Install new computers, related hardware and software;

- Perform scheduled system upgrades;
- Maintain system security, virus and malware protections;
- Maintain records, logs, and documents of installations, upgrades, repairs and system operations;
- Provide efficient customer service;
- Operate basic office equipment including a personal computer and job-related software and applications;
- Maintain a professional demeanor at all times;
- Train employees in the use of monitoring and control systems;
- Operate hand tools and a motor vehicle;
- Read and interpret technical manuals, blueprints, P&ID's, and diagrams;
- Work on multiple projects, set priorities and allocate resources for project completion;
- Use effective judgment to make sound and reasonable decisions and problem-solving skills in accordance with laws, ordinances, regulations and established policies;
- Maintain a collaborative and cooperative working relationship with elected and appointed officials, other City employees;
- Communicate effectively in the English language at a level necessary for efficient job performance;
- Complete assignments in a timely fashion;
- Understand and comply with all rules, policies and regulations;
- Perform all duties in accordance with City policies and procedures with regard for personal safety and that of other employees and the public.

**ACCEPTABLE EXPERIENCE, TRAINING, LICENSES AND/OR CERTIFICATIONS**

- Bachelor's Degree in related field required;
- Four years of instrumentation/programming experience preferred;
- Idaho driver's license required;
- ISCET ESA LEVEL I, II, & IV Certifications preferred.

An equivalent combination of education and experience that provides the required skills, knowledge and abilities to successfully perform the essential functions of the position may be considered.

**PHYSICAL REQUIREMENTS**

While performing the duties of this classification, the employee is frequently required to stand, walk, sit, stoop, kneel, bend, climb ladders, work at heights, and in confined spaces. The job requires hand/finger dexterity to keyboard or type, handle materials, manipulate tools, and reach with hands and arms. The job requires operation of job-related equipment and driving a vehicle. The employee must occasionally lift and/or move up to 50 pounds with assistance. Sufficient visual acuity and hearing capacity to perform the essential functions and interact with the public is required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.