Water Control Systems Information Analyst

CLASS CODE

TBD

SALARY

$39.08 - $54.74 Hourly

$81,286.40 - $113,859.20 Annually

General Duty Statement

Performs the most complex, technical work coordinating the Supervisory Control and Data Acquisition System (SCADA) and security measures that support water treatment processes. Performs maintenance, specification, coding, and implementation on internal systems for the information technology infrastructure used to manage water treatment at the plant and remote sites. Consults with staff, consultants, and leadership regarding user needs and develops plans for future systems improvements. Maintains knowledge of current best practices and consults with contract vendor as appropriate. Performs other related work and responsibilities as assigned.

Supervision Received

Works under the technical supervision of a unit supervisor.

Supervision Exercised

May exercise technical supervision over lower-level support, technical, or professional staff.

Typical Duties (Examples may not include all duties performed)

1. Leads hardware, software and network support services for Industrial Control System and communications devices.
2. Establishes, implements, and maintains appropriate SCADA alarming and callout pipelines.
3. Monitors and builds operator interface screens and SCADA trends.

4. Programs and implements additions and changes in the Supervisory Control and Data Acquisition (SCADA) system.
5. Implements SCADA cybersecurity measures, monitors SCADA networks activities and makes security improvements to safeguard operational technology (OT) environments of the Water Treatment Plant, the Pumping Stations and Water Storage Facilities.
6. Collaborates directly with water treatment plant operators and pumping operators to proactively identify pain points and opportunities for improvement within the SCADA system, including potential for automation.
7. Identifies and leads change initiatives related to the SCADA system.
8. Directs improvements to operator interfaces, alarming systems, callout pipelines, and trends.
9. Collaborates with and manages consultants to deliver SCADA-related projects that extend beyond the in-house capabilities of the water utility.
10. Manages SCADA-related projects and associated vendor contracts.
11. Advises department staff, management and external agencies regarding long term planning and strategic issues on assigned projects.
12. Orients, trains, directs, and supports lower-level staff as directed.

Competencies (Not listed in order of importance)

Technical Expertise

- Demonstrates an advanced understanding of the principles, terms, procedures, and practices of process control systems of a water plant. Applies this understanding to identify and resolve complex problems associated within the work.
- Demonstrates an advanced understanding of the system applications, infrastructure, and information technology environment used to provide automated monitoring, control, and maintenance of water treatment, pumping, and storage processes. Identifies and resolves complex challenges associated with the work.
- Demonstrates an advanced understanding of the processes and protocols associated with SCADA and related applications that monitor and interface with water treatment, testing, measurement, tracking, security, pumping, and storage. Identifies and resolves the complex problems associated with the work. Configures, installs, and tests the

complex applications and equipment and understands a wide range of related processes and protocols.

- Demonstrates an understanding of current information technology trends, best practices, and industry standards. Applies this understand and instructs others on work projects, processes, and practices that meet technology needs.
- Demonstrates the ability to understand complex interrelated information needs. Identifies and recommends improvements to the platform and application technology. Identifies, minimizes, resolves, or refers risks and liabilities associated with the assigned work and involves management as appropriate.

Decision Making and Problem Solving

- Demonstrates the ability to set priorities, coordinate work efforts, and meet deadlines under conditions of limited resources and competing demands. Coordinates multiple projects for a variety of internal clients and involves the contracting vendor as appropriate.
- Demonstrates the ability to effectively analyze and solve difficult and complex work-related problems using past experience, research, best practices information, feasibility studies, and input of the vendor.

Communication

- Demonstrates an ability to follow detailed verbal and written instructions. Effectively listens, speaks, writes, and interacts tactfully in a work group or with the public. Ability to use verbal and written communication to work collaboratively with citizens, contractors, and departmental staff.
- Demonstrates an ability to effectively engage in two-way communications with a diverse group of coworkers, supervisors, and the public in a cooperative, non-argumentative manner, using calm, moderate tones and appropriate language.
- Demonstrates an ability to communicate effectively and develop positive working relationships with internal and external customers such as citizens, contractors, and department personnel.
- Demonstrates the ability to speak and write in a manner that can be easily understood by employees at all levels within the organization including organizational leadership. Prepares clear and comprehensive project proposals and plans. Effectively represents the organization's perspective to other public agencies, vendors, and entities doing business within the organization.

Teamwork, Leadership, and Management

- Demonstrates an understanding of the priorities, goals, and objectives of assignments and an understanding of the SPRWS' mission and vision to perform assigned work.
- Demonstrates the ability to provide effective project leadership by demonstrating support of the group problem-solving process. Provides effective work direction to project members by willing to provide assistance through sharing of technical expertise and through promotion of positive work behaviors.
- Demonstrates effective teamwork by being self-motivated, accepting and completing assignments within deadlines, and supporting department projects and programs.
- Demonstrates an ability to guide or orient others in projects using SPRWS practices and procedures.

Customer Service

- Demonstrates the ability to develop an understanding of the full range of business and information needs for the organization and its customers. Identifies and resolves the full range of related issues.
- Demonstrates a commitment to established customer service standards. Promptly and appropriately responds to requests for service from internal and external customers by resolving issues as they arise and quickly responding to situations.
- Demonstrates a basic understanding and respect for the diversity of the community, coworkers, and supervisors, including individuals with a disability or whose first language may not be English.

Requirements

Requirements may be met by one of the following:

- Bachelor’s degree in computer science, information technology, engineering, or a closely related technical field relevant to industrial control systems, and four (4) years of experience related to the vacancy. Experience related to the vacancy should include BOTH experience with computer systems/networks AND experience with water treatment.
- Eight years of experience as a water treatment plant operator, pumping operator, or water quality specialist (or equivalent), and Certification in SCADA Software or in programming of Programmable Logic Controllers within 18 months of hire.
- Eight years of experience as a computer network administrator, and a Class D Water Supply System Operator License issued by the Minnesota Department of Health within 18 months of hire.

Must possess and maintain a valid Minnesota Class D Driver's License, or equivalent out-of-state driver’s license.

Note - Acceptable Degree Fields include: Acceptable degrees include computer science, information systems, electrical engineering, computer engineering, automation engineering, environmental engineering, environmental science, or other closely related technical, environmental, or engineering fields with demonstrated relevance to industrial control systems, process control, or regulated utility operations, as determined by the Water Department.

Supplemental Information

AFSCME Technical - Employee Group 02, Grade 046.

Essential Functions are the functions that the individual holding the position must be able to perform unaided or with the assistance of a reasonable accommodation. The Essential Functions are Typical Duties 1-12.

This job description is part of a class series. The entire class series can be found on the Information Technology Job Family Chart where you can search the career progression within the job family.