

**Essential Personnel**

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<b>DEPARTMENT:</b> Operations - Collections	<b>SUPERVISED BY:</b> Operations Manager (Collections)	<b>FLSA STATUS:</b> Exempt
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**JOB SUMMARY:**

The Control Systems Administrator (Collections) is responsible for the reliability and performance of the control systems and applications primarily utilized by the Operations (Collections) Department, including functionality, integration, accessibility, and maintenance. These systems include but are not limited to supervisory control and data acquisition (SCADA), the radio telemetry system, and programmable logic controllers (PLCs). The position performs routine and advanced maintenance, analysis, programming, reporting, and planning tasks to enhance the value, functionality, and reliability of the control systems.

**DISTINGUISHING FEATURES:**

This is a single classification exempt-level position in the Operations (Collections) Department and not part of a series. The position maintains overall responsibility for the control systems, working with a high degree of independence under the general supervision of the Operations Manager. Work activities have a moderate to high degree of complexity, requiring specialized knowledge and expertise and independent decision-making based on achieving overall program objectives.

**MINIMUM QUALIFICATIONS:**

**Demonstrated knowledge of:**

- PLC, Operator Interface Terminal (OIT), and Human Machine Interface (HMI) programming and development (Allen Bradley and Automation Direct preferred).
- SCADA software administration, integration, and maintenance (GE products preferred, including Cimplicity).
- Telemetry technology used in communication between Remote Telemetry Units (RTUs), Programmable Logic Controllers (PLCs,) and SCADA gateway both in software & hardware
- International Society of Automation (ISA) Standards.
- Principles of analysis, design, development, and implementation of complex computer and communication systems.
- Enterprise Asset Management systems (CentralSquare preferred).
- Relevant electrical safety codes and regulations.

**Skill in:**

- Tested proficiency in PLC programming.
- Monitoring and maintaining network and telemetry communications and SCADA systems security & cyber security tools.
- Configuring hardware, software, and network components as utilized in the District's SCADA system.
- Maintenance, integration, cataloging, programming and improvement of the SCADA

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system software platform including OIT/HMI graphics.

- Troubleshooting and formulating solutions for SCADA and PLCs.
- Identifying and evaluating hardware and software needs and application requirements.
- Critical thinking and problem-solving.
- Logical analysis of overall system operations, problems, and troubleshooting procedures.
- Generating professional reports to communicate and present data and information accurately, clearly, and concisely.
- Resolving complex situations requiring superior judgment, decision-making, and/or troubleshooting.
- Quickly learning, adapting, and adopting new technologies, systems, and software.
- Establishing and maintaining accurate, clear, and organized records.
- Proficient use of computer systems and software, including Word, Excel, Outlook, and other tools.
- Prioritizing, organizing, and completing multiple concurrent assignments on time, accurately, and with minimal supervision.

**Ability to:**

- Effectively develop and troubleshoot PLC programs and SCADA interfaces for pump station operations.
- Develop and execute effective plans for addressing deficiencies in the system.
- Analyze, design, code, test, and debug computer systems and programs.
- Use information technology and related applications to convey and retrieve information and facilitate work activities.
- Enter, transcribe, record, store, and maintain information accurately and precisely in electronic/digital format.
- Read and interpret equipment operation and maintenance manuals, engineering reports, construction plans, and specifications.
- Analyze problems, identify alternative solutions, assess impacts of proposed actions, and implement recommendations.
- Research and develop improved methods, systems, and practices to meet the District's control system needs.
- Plan, implement, and manage projects.
- Enforce policies and standards for the design, installation and maintenance of all District instrumentation & control and SCADA systems.
- Communicate technical information clearly and concisely in oral and written form to diverse audiences with varying degrees of understanding.
- Understand and follow directions, effectively adjust to changing priorities, problem solve and multi-task.
- Pass all required safety training classes and apply those procedures to the work environment.

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- Work collaboratively as part of a team or alone.
- Maintain a professional and respectful working environment.
- Represent the District in a positive and professional manner.

**CERTIFICATIONS AND LICENSES:**

- ISA Level 1 Control Systems Technician Certification or equivalent preferred.
- Allen Bradley Logix Programmer or Logix Maintainer Certificate preferred.

**EDUCATION & EXPERIENCE:**

A combination of education, training, and experience that provides the requisite knowledge, skill, and abilities to successfully perform the duties and fulfill the responsibilities of this position is acceptable.

- Associate's degree in computer science, industrial control programming, control system engineering or related field OR certificate of completion from an accredited automation trade school or equivalent.
- Five (5) years experience in PLC maintenance and programming.
- Two (2) years experience operating in the analysis, design, implementation, programming, and or support of SCADA systems.

**WORKING CONDITIONS:**

The employee in this position typically works in an office environment requiring close, detailed reading and use of a computer. Includes regular field visits and work outdoors at remote locations or at the wastewater treatment plant in all weather conditions. Requires physical capability and mobility to navigate all types of surfaces and terrain. Potential exposure to high voltage electrical equipment, raw sewage, and/or odors or other hazardous atmospheres. Physical demands include but are not limited to standing, crouching, bending, climbing stairs and ladders, reaching, twisting, repetitive motion, and lifting, occasionally up to 50 pounds. Corrected vision sufficient for reading maps and use of computers is also required. Wearing and/or using personal protective equipment (PPE) will be required to perform or monitor certain tasks. May be assigned to work alone or with others. Required to occasionally work after regular business hours and in emergency or inclement weather conditions.

**DUTIES & RESPONSIBILITIES:**

The duties listed below, while not all-inclusive, are characteristic of the type and level of work associated with this position. This includes all or a combination of several duties that are listed below, in addition to other related responsibilities. The District reserves the right to add, modify, or remove duties as appropriate to meet business needs.

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- Designs, implements and supports PLC programs for pump stations and flow meters.
- Engineers, integrates, develops, and programs computer systems & network devices related to the secure operation and maintenance of the SCADA and telemetry system.
- Maintains operational integrity and functionality of SCADA system for remote pump stations, including all associated remote telemetry. Develops and implements alarm notifications, preventative maintenance programs, system upgrades and/or modifications, configuration changes and documentation, and testing.
- Reviews pump station design drawings and contributes to development of standard specifications. Performs operation readiness testing, troubleshooting, commissioning, and startup support in construction for remote pump station expansions.
- Creates project estimates and scope for supporting contractors and consultants and works closely with vendors for support and product development.
- Performs procurements; controls and maintains inventory and licensing of required controls components, hardware, software, and materials.
- Collects and monitors control systems data and prepares and maintains operating reports using SCADA historian and built-in tools; ensures database collection meets operational needs.
- Analyzes work orders and assets using a computerized maintenance management systems (CMMS).
- Serves as subject matter expert in SCADA, PLC, and telemetry platforms.
- Performs upgrades, installs patches, and makes recommendations on when and how the District should update automated and digital platforms.
- Integrates various control systems and software appropriately and works closely with the IT Services Manager to ensure sound integration and change management.
- Reviews and reports on potential departmental development needs, including those related to control system software, hardware/equipment, and telemetry infrastructure for strategic and budgeting purposes. Researches and develops improved workflows, methods, equipment, and devices to meet the control system needs of the District.
- Plans, schedules, and communicates details regarding upgrades or modifications and serves as project manager for control system projects.
- Prioritizes emergency repairs related to equipment failure to eliminate downtime.
- Implements and maintains disaster recovery best practices and technology to reduce unscheduled downtime.
- Develops, analyzes, and documents standard operating procedures and works with users to increase functionality and efficiency.
- Works with Operations Manager and IT Services on all related client hardware and software

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selection and implementation.

- Maintains and administers FCC Licensing for District radio network.
- Maintains up-to-date knowledge of new developments in technologies and performs and coordinates development, testing, and implementation of new and updated technologies.
- Responds to after-hours calls to resolve control systems outages.
- Be dependable and punctual in reporting to work as scheduled.
- Comply with District policies and procedures.
- Perform other duties as assigned.

**RELATIONSHIP WITH OTHERS:**

The employee in this position is in daily contact with operations, maintenance, engineering, and other staff members, contractors, and vendors in person and via email or telephone to collaboratively develop and or locate, identify, and solve control systems issues. May receive and respond to direct work requests from management.

**SUPERVISION:**

**Exercised:**

No direct supervisory duties. Coordinate and direct the activities and work of assigned project personnel and/or external consultants and contractors.

**Received:**

This position works independently under the general supervision of the Operations Manager (Collections), who assigns and reviews work through formal and informal discussions, review of created reports and other documentation, or discussion of problems as they occur. Work may be assigned in the form of objectives, priorities, and deadlines. The employee works with a high degree of independence and is expected to exercise significant judgment and initiative in managing assigned tasks and meeting deadlines and goals. Completed work is reviewed as needed for accuracy, adherence to deadlines, and conformance to industry standards and District policies, codes, and procedures.

**SPECIAL REQUIREMENTS:**

- This position is designated as Essential Personnel and is required to report to work during all inclement weather events.
- Reside within 50 minutes reporting time to the District office within one year of date of hire.
- Availability to work nights and or weekends on an as needed or emergency basis for scheduled upgrades or due to system outages.
- Possess and maintain a valid state-issued driver's license and be qualified to obtain and maintain coverage through the District's vehicle insurance program.

JOB TITLE: **CONTROL SYSTEMS ADMINISTRATOR (Collections)**

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- Must pass pre-employment job-related skills testing.
- Maintain appropriate physical fitness to perform essential job functions.
- Final offer of employment is contingent upon successful completion of a pre-employment physical and reference check.