

CITY OF HAMILTON

PUBLIC WORKS DEPARTMENT

(HAMILTON WATER – PLANT MAINTENANCE & TECHNICAL SERVICES - LOCATION – 700 WOODWARD AVE.)

SUPERVISOR SCADA (SCADA INSTRUMENTATION & CONTROL) – CUPE 1041

SUMMARY OF DUTIES

Reporting to the Superintendent SCADA, the SCADA Supervisor (SCADA Instrumentation & Control) will assume accountability and responsibility for the overall development, implementation and execution associated with the water and wastewater treatment facilities and outstations as required as part of the City's Water and Wastewater Treatment Section's responsibilities. Provide expertise and direction in the development of tender documents, consultant selections, budget preparation, scoping documents and review of operations and maintenance of our facilities.

This position provides SCADA expertise for all water and wastewater facilities operated by the city, responsible for the maintenance and of the SCADA system including network, networked equipment, PAC, , as well as overall system monitoring and security. This position will also provide SCADA expertise to other groups as part of Hamilton Water, supporting project design specification and detailed review of engineering design and review of construction ensuring compliance with applicable standards and specifications. In addition, oversee, coordinate and implement ongoing maintenance pertaining to SCADA system hardware and software as required in the division.

The Supervisor (**SCADA Instrumentation & Control**) is required to effectively communicate with staff in areas of operations, maintenance, capital delivery^[41], construction, planning and development as well as, contractors and consultants to resolve problems, execute project work and/or develop policies, procedures and specifications for SCADA systems as required in the division.

The overall job focus is to implement and maintain solutions for the maintenances of SCADA, automation of plant operations and engineering tasks to support functions of departmental staff using SCADA technology.

Possess a demonstrated record of strong leadership, technical competence, customer focus, innovation/creativity, team advocacy and be committed to results.

Possess a high level of personal integrity and be an excellent communicator.

GENERAL DUTIES (INCLUDING, BUT NOT LIMITED TO)

Direct and supervise SCADA technician staff in the performance of their maintenance duties of SCADA and assistance of troubleshooting field devices with maintenances trades

Provide leadership, technical advice and direction to staff within the section. Promote teamwork and integration between internal and external parties participating in cross functional and SCADA maintenance initiatives.

Ensure that employees are provided with and use the appropriate equipment, material and/or procedures required to perform the assigned duties. Ensure that all employees perform work in accordance with applicable Health and Safety legislation and all City of Hamilton corporate and departmental policies and procedures. Ensure that appropriate action is recommended for those employees who do not work in compliance with legislation, policies and procedures.

The SCADA Supervisor (SCADA Instrumentation & Control) will work closely with trade supervisors and Plant Operations staff to ensure that the operational requirements are met by the SCADA system in terms of hardware and software maintenance. Duties to be performed include:

- To assist with the ongoing development, implementation and maintenance of the SCADA standard. These standards need to be maintained and documented, and must be enforced upon all parties that perform work on the system.
- Maintain SCADA systems including: graphics, tagging, database configuration, reporting and programming for all City facilities.
- Create and maintain a system to manage back-ups for all programmable field devices. Manage a central inventory of back-ups including software version, code revision, and date etc.
- Review, in detail, SCADA system programming performed internally as well as externally by contractors or consultants for compliance with City's standards and provide direction when necessary.
- Participate in SCADA FAT (Factory acceptance tests) and SCADA SAT (Site acceptance tests) as required.
- Provide SCADA development, implementation and integration for all capital/operational upgrades at City facilities.
- To direct and assist Consultant Engineers in the preparation of contract specifications including, electrical, instrumentation, control, start-up, and commissioning.
- To review and approve all related PAC, networked equipment, computer hardware specifications, equipment specifications/control and schematic drawings
- To perform and carry out routine maintenance and troubleshooting of SCADA system hardware and software (PACs, I/O cards, field controllers, view nodes, SCADA nodes, database servers, networked equipment and miscellaneous vendor packages) for the division and Public Works..
- The supervisor will be responsible for providing emergency response services for monitoring, control, data or equipment failures.

Coordinate closely with operations and other maintenance trades to perform field/site investigations supporting troubleshooting efforts to resolve potential equipment failure and/or process control related operational issues. Assist in the operation of the Computerized Maintenance Management System (CMMS).

Ensure that work orders, logs, records, etc. are maintained in accordance with established procedures.

Supervise recording of data and assist in the preparation of monthly, annual and ad hoc reports.

Update appropriate Superintendent of continuing abnormal conditions, breakdowns, malfunctions or similar problems that may become evident from time to time.

Monitor, supervise and administer changes to plant operating conditions on the basis of calculations, information provided by operators.

Prepare and verify vacation schedules, timesheets, and absence reports and work orders.

Communicate with the maintenance and operation section in setting priorities to maximize process equipment efficiency.

Ensure safe and efficient work procedures are followed.

Participate in the selection and training of new and existing employees.

Participate in labour relations matters by attending interviews/meetings as required.

Maintain discipline by counseling employees, documenting incidents and ensuring ongoing monitoring.

Assist in the preparation of current budgets and provide information for capital budgeting purposes.

Ensure security of City Facilities, organize and conduct inspections for representatives from the industry or regulatory agencies.

Perform other duties as assigned which are directly related to the major responsibilities of the position.

QUALIFICATIONS

1. Must be able to demonstrate a level of expertise and knowledge related to the duties above supervision of staff .
2. Must be able to demonstrate a level of expertise and knowledge related to project and RFQ preparation, , and project administration to manage SCADA implementation projects normally gained through progressive experience in the water/wastewater treatment field, specifically in startup/commissioning, operating, maintenance and capital contract management.
3. Must have an engineering degree at a recognized University or diploma from a three year Community College course in an accredited Engineering Technology program in Computer, Electrical or Mechanical engineering.
4. Certificate of Qualification 309A electrical trade Preferred.
4. Extensive demonstrated knowledge of electrical/mechanical systems that interface with PAC/HMI software is required for effective SCADA maintenance. This requires a broad range as well as depth of knowledge to augment water and wastewater treatment process knowledge.
5. Relevant experience in configuring and programming industrial database servers and industrial field devices using GE iFix, Proficy Historian, Rockwell Automation and Inductive Automation Ignition platforms, along with knowledge of configuring databases using Microsoft SQL Server and other software.
6. Knowledge of configuring/programming networked hardware/devices such as switches, routers, firewalls, specialty communications modules, power monitors, UPSs etc in a hardened industrial/manufacturing application.
7. Sound judgment related to the application of automated systems in an engineering environment.
8. Previous experience developing software applications for data deployment, identifying SCADA Implementation strategies, reviewing operational design drawings and ensuring that proposed design meets City's design specifications and standards.
9. Previous experience providing project management services including the management of consultants/contractors, recommending and implementing standards for work performed by consultants on operating, maintenance and capital projects.
10. Demonstrated ability to support process optimization/improvement initiatives by performing technical analysis against process control parameters/variables in order to determine operational efficiencies, document findings and feedback to appropriate stakeholders.
11. Highly developed ability to articulate a vision to lead and inspire others.
12. Must possess a valid Class "G" Driver's Licence.

THIS POSITION REQUIRES A VALID CLASS "G" DRIVER'S LICENCE AND PROOF THEREOF IS REQUIRED AFTER HIRE.

NOTE:

As a condition of employment, the successful applicant(s) will be required to obtain a satisfactory Criminal Reference Check or Vulnerable Sector Screening, at their own expense, prior to beginning work in this position.

THE INCUMBENT SHALL COMPLY WITH ALL HEALTH AND SAFETY POLICIES AND PRACTICES FOR THIS POSITION AND THE WORKPLACE.
