WATER UTILITIES ELECTRICAL/INSTRUMENTATION AND CONTROLS ENGINEER

MAJOR FUNCTION

This professional, technical and supervisory work in the development, direction, administration, operation and maintenance of a comprehensive department-wide integrated instrumentation, monitoring, control and telemetry communications Supervisory Control And Data Acquisition (SCADA) network. The incumbent serves as project manager, planning, designing, and implementing capital improvements related to electrical, telemetry and instrumentation controls, as well as providing supervision to division level technicians responsible for operating and monitoring the various components of the network. Work is performed under the general supervision of a higher level professional or administrator, with the incumbent exercising considerable independent judgment in executing program activities.

ESSENTIAL AND OTHER IMPORTANT JOB DUTIES

Essential Duties

Directs, coordinates and manages technical staff and resources involved in planning, design and implementation of capital improvements related to telemetry, instrumentation and control systems for Water Utility projects, programs and studies. Coordinates and assists Water Utility's senior managers in providing electrical engineering and telemetry services in support of Utility's strategic plan, operational and capital projects and programs. Serve as SCADA network administrator, including, but not limited to, access control, back-up, monitoring, control, man-machine graphical interface, integration, and troubleshooting. Evaluate, plan, implement and supervise the Water Utility's SCADA System for short and long-term reliability. Develops and manages capital projects and related budgets for the design, implementation and maintenance of system control, instrumentation and telemetry systems for SCADA operations. Develops educational and training programs for staff, supervisors and managers in the use and sharing of facility operational information and data, and remote monitoring activities. Manages contractual electrical/instrumentation work, including review and payment of invoices. Reviews and updates standards for all instrumentation and telemetry equipment throughout the Water Utilities Department. Assists other utility Managers in developing divisional and departmental capital budgets, in support of long-term goals related to the incumbent's area of responsibility. Attends startup testing associated with new facility construction. Monitors all types of other departmental activities for impact upon program area. Prepares and administers division budget. Recommends hiring, transfer, promotion, grievance resolution or discharge of subordinate personnel. Conducts performance evaluations and recommends approval or disapproval of merit increases. Perform related duties as required.

Other Important Duties

Benchmarks with other Florida utilities with best practices in relation to SCADA Management and Control. Serves on ad hoc and cross-functional teams or committees as required. Prepares proposals, makes reports and maintains records. Performs related work as required.

DESIRABLE QUALIFICATIONS

Knowledge, Abilities and Skills

Considerable knowledge of principles, practices, and techniques of radio and telephonic communications system design, ladder logic design for programmable logic controllers, water and wastewater utility instrumentation, monitoring, and control strategies, and electrical distribution systems. Considerable knowledge of computer hardware, electrical control systems, water distribution systems, switchgear, and instrumentation. Knowledge of proper safety procedures for working on and around high-voltage electrical systems, underground electrical ducts banks, and, in general, water and wastewater utility treatment plants and related facilities. Knowledge of the maintenance, repair and calibration of electrical, electronic, and pneumatic instruments and controls and other related equipment. Ability to plan projects, prepare cost estimates, conduct engineering research, make inspections, and prepare progress and accomplishment reports. Ability to maintain records and prepare reports. Ability to coordinate and/or

supervise subordinates. Ability to maintain effective working relationships with fellow employees, contractors and the general public. Ability to communicate clearly and concisely orally and in writing. Skill in Skill in the use of microcomputers and the programs and applications necessary for successful job performance.

Minimum Training and Experience

Possession of a bachelor's degree in electrical engineering and five years of professional experience that includes planning, design, construction or operation and maintenance of instrumentation, control and telemetry systems and equipment in a water, wastewater or related utility; or an equivalent combination of training and experience. One year of supervisory experience is required and may be a part of the aforementioned required experience or may be in another area.

Necessary Special Requirement:

Must possess a valid class "E" State driver's license.

Must possess registration as a professional engineer at the time of application. Incumbent must attain a registration as a professional engineer in the State of Florida within one year from date of employment.

Established: 06-28-06