SCADA TECHNICIAN

DISTINGUISHING FEATURES OF THE CLASS: This is a skilled position involving the responsibility for the efficient programming and installation of a real-time-base Supervisory Control and Data Acquisition (SCADA) System for the electric and water and wastewater utility systems. An employee in this class performs the analysis, organization and preparation of detailed programmed instructions involving a variety of data for use within the SCADA system parameters. Responsibility for monitoring remote stations via the SCADA System is required. The position requires an employee to confer with vendor representatives, console operators and utility system administrators. Work is performed under general supervision. Does related work as required.

TYPICAL WORK ACTIVITIES:

Designs and codes computer programs, documentation forms, flow charts and diagrams to adapt water and electrical utilities to electronic monitoring;

Prepares test data, performs testing, modifies and revises programs;

Debugs computer programs to assure integrity of system;

Selects and installs or arranges for the installation of equipment and software at both central and remote areas;

Makes recommendations for upgrading equipment on an on-going basis;

Installs network devices such as modems, terminals, controllers, multiplexors, printers and central and remote micro-computers;

Related Duties: Maintains the Master Station (includes PC's, expansion units with communications and multiple CRT hardware, high speed modems and dual failover hardware) and associated remote CRT's connected by high speed data links; Maintains the master dual failover microwave radio transceiver and associated UDS modems; Maintenance includes frequency, FM deviation and power adjustments (required by FCC). Installs and maintains remote terminal units (RTU) and associated microwave links; Installs appropriate interface hardware to indication, analog I/O and control points; Programs RTU parameters to communicate with master station; Installs and calibrates analog input devices such as level/pressure transducers, flowmeters, liquid injection devices, voltage/amperage transducers, and substation regulators; Builds main data base, writes multicalc programs, creating dynamic displays; maintains current computer backups of complete system, including multicalc files, database, index displays, and operating system files.

Confers with administrators to ascertain the nature of projects, the form of source information, and the form of results required;

FULL PERFORMANCES KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

Good knowledge of electronic computer programming principles, techniques and concepts;
Good knowledge of the operation of electronic computers and related peripheral data communications equipment;
Working knowledge of systems analysis applicable to computer programming;
Skill in applying utility system concepts to electronic monitoring program;
Ability to understand complex written and oral instructions;
Ability to maintain accurate records;
Ability to perform close, detail work;
Ability to relate well to technical people, system users, and vendors;
Physical condition commensurate with the demands of the position.

MINIMUM QUALIFICATIONS:

A)   Completion of 60 semester credit hours from a regionally accredited or New York State registered college or university including 24 credit hours in electronics, physics or computer science and one year of experience programming a computer or utilizing telemetry and electronic monitoring systems; or

B)   Graduation from high school or possession of a high school equivalency diploma and 3 years of experience programming a computer or utilizing telemetry and electronic monitoring systems; or

C)   An equivalent combination of education and experience as defined within the limits of A) and B).

NOTE: General Radio/Telephone Operators License (issued by FCC) is required for this position.

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