

WASTEWATER APPLICATION TECHNICIAN

DISTINGUISHING FEATURES OF THE CLASS: This is skilled work involving responsibility for installing, maintaining, and repairing highly technical electronic and mechanical equipment. Equipment includes instrumentation and communication devices which are part of the automatic operation of the Wastewater Treatment Plant. The work is performed under general supervision of the Chief Wastewater Treatment Plant Operator. Does related duties as required.

TYPICAL WORK ACTIVITIES:

Installs, repairs and maintains process control, monitoring, recording and indication instruments such as flow meters, level and pressure sensors, radio transmitters, radio receivers, indicators and SCADA system;

Participates in and/or assists in the installations, repairs and maintenance of electrical motors, variable frequency drives, switch gears, switches, transformers, heating and A/C equipment, and other related electrical-mechanical equipment;

Maintains and repairs digital computer equipment, such as contact input/output boards, analog to digital converters, programmable logic controller's and related equipment;

Recommends to supervisor, the changes designed to improve the efficiency and economy of the physical plant operation;

Maintains comprehensive and accurate records of maintenance work performed on instrumentation equipment;

Debugs computer programs to assure integrity of system;

Designs and codes computer programs, including programmable logic controller's, for recording of data reports from SCADA, and flow charts and diagrams to adapt wastewater equipment to SCADA wiring;

Installs network devices using Ethernet and/or telephone wiring such as modems, terminals, controllers, multiplexors, printers, and central and remote microcomputers, including programmable logic controller's;

May occasionally devise equipment for use within the system.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

Thorough knowledge of the operation and functions of instrumentation and communication equipment;

Thorough knowledge of the principles and theories of electricity as applied to instrumentation, computer and communication equipment;

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Good knowledge of methods, materials, tools, equipment, and applicable codes used in installation, maintenance and repair activities in instrumentation;
Good knowledge of theory and operation of digital computer logic, equipment, programs and SCADA systems;
Good knowledge of the operation of electronic computers and related peripheral data communications equipment;
Working knowledge of systems analysis applicable to computer programming
Good knowledge of 3 phase power, distribution and Motor Control Circuits;
Skill in the use of tools necessary to maintain and repair such equipment;
Ability to read and interpret plans, diagrams, schematics and specifications;
Ability to follow oral and written instructions;
Initiative and resourcefulness in solving mechanical problems;
Ability to get along with others;
Dependability;
Good judgment.

MINIMUM QUALIFICATIONS:

A) Possession of a Bachelor's Degree in electrical engineering technology, computer technology or closely related field; OR

B) Possession of an Associate's Degree in Electrical Engineering Technology, Computer Technology or closely related field and two years' experience performing skilled work in the maintenance and repair of instrumentation and communication equipment; OR

(B) Four years' experience performing skilled work in mechanical and electro mechanical repairs, electronic circuitry repair, computer programming two of which must have involved instrumentation installation, maintenance and repair work which must have included laying out of work and the diagnosis of malfunctions; OR

(C) An equivalent combination of training and experience as indicated in (a) and (b) above.