

CITY OF CEDAR RAPIDS POSITION PROFILE	JOB CODE #/TITLE: AF055 Water Plant Electrician
POSITION #/TITLE: 0042 Water Plant Electrician	Adopted: 07-97
	Revised: 01-16

POSITION DESCRIPTION

Dept /Division: Utilities/Water	Manager Level: Non-Manager
Salary Plan/Description: AFS/AFSCME	Salary Grade: 30
Reports To Position #/Job Code #/JC Title: 0167/NB501/Water Plant Electrical Systems Supervisor	Dotted-line Reports To Position #/Job Code #/JC Title:
FLSA Status: Non-Exempt	City Overtime Status (Employee Type): Non-Exempt (Exception Hourly)
Physical Demand Rating: Very Heavy	Work Environment: Uncontrolled
Pre-employment Testing: Drug and health screening after contingent offer.	Position Testing: Knowledge & Skills Test, Pre-Employment Qualifications, CDL-B, First Aid, CPR, AED, SCBA
Personal Protective Equipment: Eye, Head, Hand, Foot, Reflective Vest, Hearing, Respirator, Protective Clothing	

General Statement of Duties

Provides technical services in the area of electrical repair, installation, maintenance and troubleshooting.

Distinguishing Features of the Class

Work is performed under general supervision, with the ability to exercise discretion in selection of work method and schedule.

Examples of Essential Work (Illustrative Only)

Installs, repairs and maintains electrical distribution systems, motors, variable frequency drives, motor control centers, programmable logic control systems and components, and other electrical equipment of a water treatment plant and booster stations;

Troubleshoots malfunctions of electrical and pneumatic control components of motor control circuits and low (480 and below) voltage switchgear;

Installs, maintains, calibrates, and repairs a variety of electric and electronic measuring instruments, radio communications and equipment at the treatment plants and at remote field locations;

Maintains and repairs Programmable Logic Controllers (PLC), flow meters, on-line water quality analyzers, computers and controls, Supervisory control and Data Acquisition systems (SCADA), closed circuit television systems, automated filter controls and associated equipment;

Repairs, replaces, and maintains recorders, transmitters, transducers and various kinds of laboratory test equipment as necessary;

Advises superiors on equipment and instrumentation malfunctions and maintenance needs;

Assists Telemetry Department as necessary;

Assists/responds to other City Departments as assigned;

Reviews plans for new installations;

Requisitions equipment and supplies as required;

Performs emergency repair services as needed;
Responds to emergency call-ins;
Maintains system and repair records;
Attends shop staff and safety meetings;
Wears and properly uses safety equipment including personal protective equipment, fall protection equipment, self-contained breathing apparatus, and gas detection equipment;
Performs all work duties and activities in accordance with City policies, procedures and safety practices;
Attends work regularly at the designated place and time;
Supports continuous process improvement initiatives;
Performs related work as required.

Required Knowledge and Abilities

Knowledge of basic electricity theory, electrical safety, circuit design, functions of transformers, motors, motor control centers, variable frequency drive units, and associated electrical equipment;
Knowledge of functions of specific electrical equipment utilized in water collection and treatment processes and its operation and maintenance;
Good knowledge of process control and monitoring equipment to include PLC's, SCADA and telemetry systems, pressure and flow meters, transducers, radio control systems, recorders and other related equipment;
Knowledge of function and operation of specific instruments and electrical and electronic equipment used in a water treatment and distribution processes;
Knowledge of OSHA permit-required confined space entry protocol, respiratory protection standards, right-to know laws, CPR, First Aid, and AED;
Skill in reading and writing the specialized vocabulary of water treatment;
Skill in accurately performing intermediate-level mathematical computations;
Skill in reading electrical schematics;
Skill in methods and techniques of electrical system installation, maintenance and repair, particularly as applied to water treatment and collection equipment and programs;
Ability to properly utilize the following equipment and tools: personal protective equipment, gas detectors, fall protection equipment and self-contained breathing apparatus, meters and testing instruments, electric and acetylene welders, hand tools, vibration analyzer, cutting torch, electric hammer and drills, fork-lift, overhead bridge crane, conduit benders, wire pulling equipment, Arc-Flash Suit, Electricians Gloves;
Ability to work under general supervision and exercise some discretion in work method and schedule;
Ability to perform confined space entry, including rescue, using permit-required protocol;
Ability to attend meetings, conferences, training and seminars;
Ability to operate a personal computer program applications appropriate to assigned duties and responsibilities;
Knowledge of computer systems and their application for process control and records maintenance
Ability to work cooperatively and to maintain effective working relationships to accomplish job responsibilities;
Ability to quickly learn and put to use new skills and knowledge brought about by rapidly changing information and/or technology;
Ingenuity and inventiveness in the performance of assigned tasks.

Acceptable Experience and Training

Requires completion of a four-year electrical apprenticeship program covering construction, control, safety and high-voltage components and procedures; a minimum of two years experience as a journeyman maintenance electrician; and
An Associate's Degree in industrial maintenance, electrical or electronic engineering preferred; or

Any equivalent combination of documented additional journeyman-level job experience which provides the knowledge and abilities necessary to perform the work may be substituted for formal apprenticeship program.

Required Special Qualifications
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Possession of journeyman's electrician's license upon appointment.

Essential Physical Abilities

Requires the following, with or without reasonable accommodation:

Clarity of speech and hearing which permits the employee to communicate effectively;

Sufficient vision which permits the employee to operate equipment and tools;

Sufficient manual dexterity which permits the employee to operate equipment.