

CITY OF MARGATE, FLORIDA JOB DESCRIPTION

JOB TITLE: ELECTRICIAN II (Master Electrician) (Job Code 587).

GENERAL STATEMENT OF JOB

Under the direction of the Director of the Department of Environmental and Engineering Services (DEES) or the Director's designee, performs work as a master electrician in the maintenance and repair of electric motors, motor controllers, electrical instrumentation, building wiring and electrical systems. Duties include performing maintenance and repairs to industrial and electronic generators, pumps, switching systems, measurement devices, and related equipment, troubleshooting downed equipment and circuits and installing and/or maintaining panels, circuitry, and power and lighting systems, as well as servicing and repairing all communications and related equipment, i.e., computers, printers, models. Duties also may include supervising other employees, including electricians and instrumentation technicians. Duties involve an element of personal danger and hazardous working conditions. Performs related work as required.

ESSENTIAL FUNCTIONS

The following duties and functions, as outlined herein, are intended to be representative of the type of tasks performed within this position. They are not listed in any order of importance. The omission of specific statements of the duties or functions does not exclude them from the position if the work is similar, related, or a logical assignment for this description. Other duties may be required and assigned.

Performs skilled work of a specialized nature involving difficult electrical maintenance and repair operations.

Installs, maintains, repairs and tests electrical wiring systems, fixtures, motors, generators, transformers and other electrical equipment at lift stations and other departmental facilities.

Lays out and installs electrical conduits for power and lighting in pumping stations, treatment plants, and other facilities.

Installs and repairs electric motors, controllers, switchboard panels, lighting, and power circuits.

Performs preventive maintenance duties for facilities and equipment on a regular basis to ensure optimal operating condition and safety.

Calibrates transmitters, chart recorders, gauges, load cells, transducers, pressure switches, and pH and ORP sensors.

Services and maintains heating and air conditioners, laboratory and test equipment, distribution panels, security gates, and signal wiring.

Maintains various records of activities performed, materials ordered, and hours worked.

Responds to emergencies, providing the department with 24-hour on-call service.

Services and maintains communication and computer equipment as associated peripherals, i.e, printers, computers, facsimile machines, answering machines, I/O stations.

Repairs and maintains electric motors, electric motor controller, and electrical equipment.

Installs and maintains lighting, power, and instrumentation wiring.

Gathers necessary equipment, tools, parts, or supplies to conduct projects; initiates orders for new or replacement materials; transports, loads and unloads equipment and materials used in projects.

Follows safety procedures, utilizes safety equipment, and monitors work environment to ensure safety of employees and other individuals.

Assists in the preparation to complete various forms, correspondence, reports, work orders, diagnostic reports, purchase requisitions, electrical drawings, statistical analyses, and other documents.

Maintains a current knowledge of applicable laws/regulations; maintains an awareness of new trends and advances in the profession; reads professional literature; attends workshops and training sessions as appropriate.

Conducts a preventive maintenance program for electrical and electronic equipment. Makes visual inspections to determine proper operating condition.

Performs various tasks associated with Utilities systems, including but not limited to maintaining lift stations, well fields and aboveground and underground storage tanks.

Provides assistance or coverage to other employees as needed, and performs other related duties as required.

Orders tools and supplies necessary to his work.

May keep records and submit some reports on his work.

MINIMUM TRAINING AND EXPERIENCE

High School Diploma and technical/vocational training as an electrician supplemented by three (3) years of experience working for a water and sewer utility. Considerable experience as an electrician with industrial background. A comparable amount of training and experience may be substituted for the minimum qualifications. Must possess and maintain a Master Electrician certificate, a valid Florida driver's license, and a Class "B" CDL written examination certification with air brake endorsement. Experience working with Programmable Logic Controller (PLC) and Supervisory Control and Data Acquisition systems (SCADA) is preferred.

MINIMUM QUALIFICATIONS OR STANDARDS REQUIRED TO PERFORM ESSENTIAL JOB FUNCTIONS

Physical Requirements: Tasks involve frequent walking, standing, bending, and stooping, and some lifting and carrying objects of light to moderate weight (20-50 pounds).

Data Conception: Requires the ability to compare and/or judge the readily observable, functional, or composite characteristics (whether similar to or divergent from obvious standards) of data, people, or things.

Interpersonal Communication: Requires the ability to speak and/or signal people to convey or exchange information including giving and receiving instructions, assignments and/or directions.

City of Margate, Florida • Electrician II (Master Electrician)

Language Ability: Requires the ability to communicate efficiently and effectively in standard English. Requires the ability to comprehend electronic/electrical terminology, wiring diagrams, electrical drawings, and equipment manufacturer's cut sheets.

Intelligence: Requires the ability to apply common sense understanding to perform semi-repetitive tasks and principles of rational systems and synthesis functions.

Verbal Aptitude: Must communicate efficiently and effectively in standard English. Must speak with poise, confidence, and voice control. Must communicate in electrical terms.

Numerical Aptitude: Requires the ability to add, subtract, multiply and divide; calculate decimals and percentages; utilize algebraic principles; utilize descriptive statistics.

Form/Spatial Aptitude: Requires the ability to inspect items for proper length, width and shape, and visually read various information.

Motor Coordination: Requires the ability to inspect items for proper length, width and shape. Must be able to visually read various information.

Manual Dexterity: Requires the ability to operate various electrical equipment and manipulate electrical/electronic items. Must have excellent levels of eye/hand/foot coordination for operating equipment.

Color Discrimination: Requires the ability to differentiate between colors or shades of color.

Interpersonal Temperament: Requires the ability to deal effectively with people from a variety of departments in both giving and receiving instructions. Must be able to perform duties when confronted with individuals acting under stress.

Physical Communication: Requires the ability to talk and/or hear: (talking: expressing or exchanging information by means of spoken words: hearing: perceiving nature of sounds by ear).

Environmental Requirements: Tasks are regularly performed without exposure to adverse environmental conditions, i.e. dirt, cold, rain, fumes.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of the practices, processes, materials, and tools of the electrical trade.

Knowledge of the occupational hazards and safety precautions of the trade.

Knowledge of the National Electrical Code and other related and applicable codes and standards.

Knowledge and understanding of pneumatic/hydraulic, electrical, and electronic systems.

Knowledge of and the necessary skill to work with the hazards and safety precautions applicable to voltage up to 480v.

Knowledge of the hazards and safety precautions necessary when working around high voltage systems.

Knowledge of SCADA, HMI, 4-20 mA devices, VFDs and PLC software and hardware.

Knowledge of RF Communications.

Knowledge of basic Microsoft operating systems and Microsoft Office Suite.

City of Margate, Florida • Electrician II (Master Electrician)

Skilled in locating and adjusting defects in electrical systems and equipment.

Skilled in the use and care of electricians' tools and equipment.

Ability to operate manual and power hand tools, and other discipline specific equipment and machinery.

Ability to work above or below ground floor level, on ladders, scaffolding, staging, bucket hoists, catwalks, etc. and within confined areas.

Ability to inspect materials and equipment for quality and safety and to estimate labor and materials required to complete assigned projects.

Ability to read and interpret blueprints, sketches, ladder diagrams, schematics, wiring diagrams, electrical drawings, and equipment manufacturer's cut sheets.

Ability to establish and maintain effective working relationship with supervisors, fellow employees, and the public.

Ability to coordinate with operations staff and outside vendors with minimal supervision.

Ability to create work orders, order parts and maintain inventory for utility maintenance.

EQUAL OPPORTUNITY EMPLOYER

The City of Margate, Florida, is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act (42 U.S. C. 12101 et. seq.), the City of Margate will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer. The physical demands described are representative of those that must be met by an employee to successfully perform the essential functions of this job.

I have read and acknowledge receipt of this Job description.

Employee Name and Signature

Date