

CODE: 51503  
FLSA: Non-Exempt  
GRADE: 15

**NORTH CHARLESTON SEWER DISTRICT  
JOB DESCRIPTION, DECEMBER 2014**

**JOB TITLE: PLANT MAINTENANCE ELECTRICAL TECHNICIAN  
PLANT MAINTENANCE DEPARTMENT**

**GENERAL STATEMENT OF JOB**

Under general supervision, performs skilled duties in the installation, maintenance, and repair of electrical systems, equipment, and miscellaneous fixtures. Work involves providing support to the Electrical Specialist by assisting with machine troubleshooting, installation, and calibration; ; assisting with the setup and installation of instrumentation devices. Reports to the Plant Maintenance Supervisor.

**SPECIFIC DUTIES AND RESPONSIBILITIES**

**ESSENTIAL JOB FUNCTIONS**

*This job description in no way states or implies that these are the only duties to be performed by the employee occupying this position. Employees will be required to follow other job-related instructions and to perform any other job-related duties requested by their supervisor.*

Assists in the troubleshooting and repair of plant maintenance electrical equipment emergency breakdowns, including motor driven equipment, process control equipment, and any electrically operated devices.

Installs, maintains, and repairs any new plant electrical equipment and fixtures.

Responds to power failures, machinery breakdowns, and any other afterhours emergency on an "on-call" rotating basis.

Assists in the troubleshooting and repair of plant maintenance non-emergency or scheduled equipment repair.

Performs preventive, corrective, and predictive maintenance under limited supervision.

Installs new conduit, pulls wire, terminates devices for circuits around the plant.

Assists outside contractor with work done at the plant.

Works safely around voltages up to 480 VAC constantly and up to 13,8000 VAC occasionally.

Maintains, creates, and files records pertaining to the plant maintenance department such as confined space entry forms, activity logs, maintenance schedules, lock out tag out and various operational reports.

Maintains and takes care of shop tools; keeps track of shop parts inventory; properly stores any

## **PLANT MAINTENANCE ELECTRICAL TECHNICIAN**

PPE and tools that are not in use.

Receives and/or reviews various records and reports such as non-scheduled work orders, preventive maintenance work orders, machinery operating manuals, and equipment specifications.

Prepares and/or processes various records and reports such as operating procedures for electrical functions, instrument calibration readings and certification, and electrical drawings.

Refers to nonscheduled work orders, preventive maintenance work orders, machine operating procedures, electrical schematics and equipment drawings, policy and procedure manuals, codes / laws / regulations, publications and reference texts, etc.

Operates a variety of vehicles, equipment, and machinery such as company vehicles, personnel lifts, forklift, computer, etc.

Uses a variety of tools such as hand tools, screwdrivers, wrenches, pliers, meters, camera, multimeter, analyzer, power tools, ladders, etc.; a variety of supplies such as wire, cable, various fittings, conduit and raceways, various fasteners, enclosures, boxes, general office supplies, etc.

Interacts and communicates with various groups and individuals such as Plant Maintenance Supervisor, Operations Department, Plant Maintenance Mechanics, on-site contractors, Purchasing Department, outside vendors, and the general public.

Maintains various electrical components in a manner to eliminate Arc flash risk.

### **ESSENTIAL SAFETY FUNCTIONS**

It is the responsibility of each employee to comply with established policies, procedures and safe work practices. Each employee must follow safety training and instructions provided by their supervisor. Each employee must also properly wear and maintain all personal protective equipment required for their job. Finally, each employee must immediately report any unsafe work practices or unsafe conditions as well as any on-the-job injury or illnesses.

### **ADDITIONAL JOB FUNCTIONS**

Assists other departments with problems when needed (e.g. Operations, Buildings and Grounds, Mechanics).

Works with Purchasing Department and outside vendors to order materials and supplies.

Unloads and loads materials on trailers for shipping.

Picks up materials and supplies as needed.

Performs general housekeeping duties such as sweeping, mopping, picking up trash and keeping up with the overall appearance of the plant and its buildings.

Assists in properly maintaining, recording, and accounting for parts and materials associated with the plant's stock inventory.

## PLANT MAINTENANCE ELECTRICAL TECHNICIAN

### MINIMUM TRAINING AND EXPERIENCE

Requires a High School Diploma or equivalent with 1 to 2 years' experience in industrial electrical construction and repair; or completion of technical or trade school as an electrician and three years experience in industrial electrical construction and repair; or an equivalent combination of education, training and experience that provides the required knowledge, skills and abilities. Must possess a valid South Carolina driver's license. Knowledge of wastewater systems or similar equipment is preferred. Demonstrates superior knowledge of electrical systems and controls including PLCs, VFDs, MCCs and motor controls.

### MINIMUM QUALIFICATIONS OR STANDARDS REQUIRED TO PERFORM ESSENTIAL JOB FUNCTIONS

**Physical Requirements:** Requires medium work that involves walking, standing, stooping, crouching, crawling, climbing, stretching or lifting all of the time and also involves exerting between 20 and 50 pounds of force on a recurring basis, or considerable skill, adeptness and speed in the use of fingers, hands or limbs in tasks involving very close tolerances or limits of accuracy.

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

**Interpersonal Communication:** Requires the ability of speaking and/or signaling people to convey or exchange information. Includes giving assignments and instructions and receiving information and instructions from supervisor.

**Language Ability:** Requires the ability to read work orders, technical instruction, diagrams, and blueprints. Requires the ability to prepare routine records with the proper format. Has the ability to speak before others with poise, voice control and confidence.

**Intelligence:** Requires the ability to apply principles of rational systems to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists; to interpret a variety of instructions furnished in oral, written, diagrammatic or schedule form. Requires the ability to learn and understand relatively complex principles and techniques; to make independent judgments in absence of supervision; to acquire knowledge of topics related to primary occupation. Must have the ability to comprehend and interpret received information.

**Verbal Aptitude:** Requires the ability to record and deliver information, to follow and give verbal and written instructions; to teach employees. Must be able to communicate effectively and efficiently with co-workers and the general public.

**Numerical Aptitude:** Requires the ability to add and subtract totals, to multiply and divide, to determine percentages and decimals and to determine time. Must be able to use practical applications of fractions, percentages, ratio and proportion.

**Form/Spatial Aptitude:** Requires the ability to inspect items for proper length, width, and shape.

## **PLANT MAINTENANCE ELECTRICAL TECHNICIAN**

**Motor Coordination:** Requires the ability to coordinate hands and eyes in using shop equipment; to operate motor vehicles.

**Manual Dexterity:** Requires the ability to handle a variety of items, control knobs, switches, hand and power tools, measuring devices, etc. Must have significant levels of eye/hand/foot coordination.

**Color Discrimination and Visual Acuity:** Requires the ability to differentiate colors and shades of color; requires the visual acuity to determine depth perception, peripheral vision, inspection for small parts; preparing and analyzing written or computer data, etc.

**Interpersonal Temperament:** Requires the ability to deal with people beyond giving and receiving instructions. Must be adaptable to performing under stress when confronted with emergency situations or tight deadlines. Worker may be subject to danger or risk to a moderate degree.

**Physical Communications:** Requires the ability to talk and hear: (talking: expressing or exchanging ideas by means of spoken words; hearing: perceiving nature of sounds by ear).

### **PERFORMANCE INDICATORS**

**Knowledge of Job:** Has thorough knowledge of the methods, procedures and policies of the Plant Maintenance Department as they pertain to the performance of duties of the Plant Maintenance Electrical Technician. Has knowledge of the laws, ordinances, standards and regulations pertaining to the specific duties and responsibilities of the position. Has considerable knowledge of the standard practices and methods of the electrical trade. Is skilled in the use and care of tools of the trade. Is able to locate and correct defects in electrical systems and equipment. Is able to prepare, maintain and make reports. Has considerable knowledge of occupational hazards involved and safety precautions necessary for electrical maintenance activities associated with electrical equipment in wastewater facilities. Is able to follow complex oral and written instructions with minimal supervision. Is able to plan, organize and prioritize daily assignments and work activities. Is able to anticipate supplies, materials, tools and equipment needed for project completion and routine maintenance. Has knowledge of the occupational hazards and safety precautions of the trade. Is able to work effectively despite occasional exposure to heat / cold, odors, toxic agents / hazardous materials, noise, wetness, humidity, electric currents, machinery hazards, dusts, vibrations, working in confined and/or high spaces, etc. Is able to offer assistance to co-workers and employees of other departments as required. Has considerable knowledge of the terminology used within the department. Has knowledge of proper English usage; has the mathematical ability to handle required calculations. Has knowledge of how to maintain effective relationships with personnel of other departments, professionals and members of the public through contact and cooperation. Has knowledge of how to react calmly and quickly in emergency situations. Is able to learn and utilize new skills and information to improve job performance and efficiency.

**Quality of Work:** Maintains high standards of accuracy in exercising duties and responsibilities. Exercises immediate remedial action to correct any quality deficiencies that occur in areas of responsibility. Maintains high quality communication and interaction with internal and external entities with whom the position interacts.

## PLANT MAINTENANCE ELECTRICAL TECHNICIAN

**Quantity of Work:** Maintains effective and efficient output of all duties and responsibilities as described under "Specific Duties and Responsibilities."

**Dependability:** Assumes responsibility for completing assigned work. Completes assigned work within deadlines in accordance with directives, policy, standards and prescribed procedures. Maintains accountability for assigned responsibilities in the technical, human and conceptual areas.

**Attendance:** Attends and remains at work regularly and adheres to policies and procedures regarding absenteeism and tardiness. Provides adequate notice to upper management with respect to leave requests.

**Initiative and Enthusiasm:** Maintains an enthusiastic, self-reliant and self-starting approach to meet job responsibilities and accountabilities. Strives to anticipate work to be accomplished, and initiates proper and acceptable action for the completion of work with a minimum of supervision and instruction.

**Judgment:** Exercises analytical judgment in areas of responsibility. Identifies issues or situations as they occur and specifies decision objectives. Identifies or assists in identifying alternative solutions to issues or situations. Implements decisions in accordance with prescribed and effective policies and procedures and with a minimum of errors. Seeks expert or experienced advice where appropriate and researches issues, situations and alternatives before exercising judgment.

**Cooperation:** Accepts supervisory instruction and direction and strives to meet the goals and objectives of same. Questions such instruction and direction when clarification of results or consequences are justified, i.e., poor communications, variance with established policies or procedures, etc. Offers suggestions and recommendations to encourage and improve cooperation intra- and inter-departmentally.

**Relationships with Others:** Shares knowledge with managers, supervisors and co-workers for mutual benefit. Contributes to maintaining high morale among all employees. Develops and maintains cooperative and courteous relationships inter- and intra-departmentally, and with external entities with whom the position interacts. Tactfully and effectively handles requests, suggestions and complaints in order to establish and maintain good will. Emphasizes the importance of maintaining a positive image.

**Coordination of Work:** Plans and organizes daily work routine. Establishes priorities for the completion of work in accordance with sound time-management methodology. Avoids duplication of effort. Estimates expected time of completion of work elements and establishes a personal schedule accordingly. Attends required meetings, planning sessions and discussions on time. Implements work activity in accordance with priorities and estimated schedules.

**Safety and Housekeeping:** Adheres to all established safety and housekeeping standards. Ensures such standards are not violated.

**DISCLAIMER: This job description is not an employment agreement or contract. Management has the exclusive right to alter this job description at any time without notice.**