



POSITION DESCRIPTION

An Equal Opportunity Employer

Class Title:	Power Plant Operator	FLSA Status:	Nonexempt
Dept./Div.:	Power Plant	Civil Service Status:	Unclassified
Reports to:	Power Plant Supervisor	Employment Status:	Full-time
EEO Status:	Craft Workers	Normal Work Hours:	Day Shift
Employee Name:		DOT/O*Net Code:	950.382-018/ 631.261-010 / 51-8013.00

GENERAL DESCRIPTION:

Power Plant operator performs electrical and mechanical work in the operation, construction and maintenance of various types of power generation at the power plant, the hydro-electric generation plant, substations, emergency generators and other auxiliary equipment.

Responsible for performing skilled and semi-skilled electrical and mechanical work installing, maintaining, calibrating, modifying, overhauling, troubleshooting, and repairing a variety of electrical, mechanical, and electro-mechanical equipment and systems repair, maintenance, monitoring, troubleshooting, modification and testing of combustion turbines and equipment at the Power Plant and Auglaize hydroelectric facilities as well as substations.

POSITIONS DIRECTLY SUPERVISED:

None.

EQUIPMENT OPERATED: (The following list is not intended to be all-inclusive.)

Utility tractor with front-end loader, fork lift, scissor lift, backhoe, and mower; welder; torch; circuit testers, portable generator, various other mobile equipment; hand-operated tools and precision measuring devices; 1-ton truck, 2-ton boom truck; and office equipment.

JOB DESCRIPTION AND WORKER CHARACTERISTICS:

JOB DUTIES in order of importance

ESSENTIAL FUNCTIONS OF THE POSITION: For purposes of 42 USC 12101:

1. Installs, inspects, operates, trouble shoots and maintains Bryan Municipal Utilities generation units powered by natural gas/diesel turbines, water or solar field equipment and all related equipment. Start or stop generation units and other generators, auxiliary pumping equipment, turbines, or other equipment as necessary.
2. Installs, maintains, repairs, troubleshoots and programs the instrumentation, electrical, pneumatic, thermal and mechanical types of equipment used in the electrical and water systems, including PLC's (Programmable Logic Controllers).
3. Clean, lubricate, or maintain equipment, like generators, turbines, pumps, or compressors, and other equipment to prevent failure or deterioration.
4. Maintains and trouble shoots SCADA system.
5. Control or maintain auxiliary equipment, like pumps, fans, compressors, condensers, feedwater heaters, filters to supply water, fuel, lubricants, air or auxiliary power. Collect oil, water or electrolyte samples for laboratory analysis.
6. Work with Lineworkers in the construction, operations and maintenance of substations, including the installation of transformers, voltage regulators, circuit reclosers, circuit switches and motor operated switches. Tests oil from circuit breakers, voltage regulators and transformers. Checks, operates and maintains mechanical and electrical parts in the circuit breakers, voltage regulators, control panels and transformers.



Operates and maintains substation controls, alarm points. Performs the new wiring of substations. Keeps accurate logs on all substations and relaying. Participates in substation switching procedures during planned and emergency repairs and outages. Routinely inspects substations and battery installations and records observations and makes necessary repairs and corrections. Uses laptop for inspection to track trends within transformers and regulators.

7. Installs, operates, and maintains protective relaying for power systems; installs, operates, maintains, and wires switch gear equipment for transfer of power. Test protective relaying systems; trouble shoots, diagnoses, and repairs problems found.
8. Record and compile operations data by completing maintenance forms, logs or reports and other administrative tasks as deemed necessary. Maintain and submit any other documentation requested by Power Production Superintendent.
9. Perform mechanical, electrical and plumbing work in the maintenance and repair of the power plant, hydroelectric plant, substations and related equipment.
10. Inspect equipment, structures, or materials to identify the cause of errors or other problems or defects.
11. Demonstrate regular and predictable attendance.

OTHER DUTIES AND RESPONSIBILITIES:

Perform other duties as assigned (i.e., assist other utility departments as needed; participate in required training as applicable; etc.).

MINIMUM ACCEPTABLE CHARACTERISTICS: (*indicates developed after employment)

Knowledge of: (215) mechanics principles; (216) modern power plant, substation and hydroelectric generating plant operating and maintenance principles, procedures, and practices; (217) engineering methods, principles and practices used in the construction, operation and maintenance of a power production facility, including hydro and solar generation; (218) gasoline and diesel engine operation and maintenance; (220) Ability to read and understand electrical, electronic and mechanical schematics, drawings, blueprints and technical data instructions; (251) Bryan Municipal Utilities policies and procedures*; (253) workplace safety practices and procedures; (261) employee handbook and union contract*; (263) department policies and procedures*; (269) effective working knowledge of power production; (312) mechanical machines and tools, including their designs, uses, repair, and maintenance; (326) laboratory equipment and supplies; (330) working knowledge of modern methods and techniques of electrical installation, generation facility operations, repair and maintenance; (331) combustion engines, hydraulics and electrical systems; (343) transformer, capacitor and substation connections; (344) installations, operations and maintenance of power plant, hydroelectric and solar field equipment and facilities; (345) modern power plant, substation and hydroelectric plant principles and practices; (422) records management; (477) proper safety practices*; (501) analytical equipment – troubleshooting, calibration & documentation of monitoring and supervisory systems; (510) motor starters, MCCs, VFD, & three phase systems; (511) control valve actuators, positioners, feedback, transmitters, transducers and solenoids.

Skill in: (905) computer operation; (919) USB, Ethernet & serial communications; (920) Programmable Logic Controllers; (933) maintenance practices or construction work; (934) gasoline and diesel engine operation and maintenance; (935) diesel and natural gas/diesel turbine generator operation and maintenance; (958) motor vehicle operation; (960) use or operation of Word, Excel and e-mail software*; (962) proper use of hand and power tools; (970) troubleshooting, repairing and installation of instrumentation, electrical pneumatic, thermal and mechanical types of equipment; (971) PLC and HMI based systems; (972) Wiring diagrams, loop diagrams, cable scheduling and instrument lists; (973) Calibrating, configuring and repair of measurement / control instruments.

Ability to: (601) carry out detailed oral and written instructions; (608) deal with many variables and determine specific action; (609) recognize unusual and threatening conditions and take corrective action; (611) define problems, collect data, establish facts, and draw valid conclusions; (612) deal with nonverbal symbols in formulas, equations, or graphs; (613) be results-focused; (617) determine material and equipment needs; (630) read, copy, and record figures accurately; (633) calculate fractions, decimals, and percentages; (634) understand and calculate physics and algebra equations; (652) complete routine forms; (654) prepare accurate documentation; (684) communicate effectively; (660) read and modify relay drawings and electrical schematics; (661) read electrical schematics and blueprints; (661) read



and interpret process and instrumentation diagrams (P&ID); (700) recognize safety warnings; (703) comprehend simple sentences with common vocabulary; (706) understand a variety of written and/or verbal communications; (708) read and understand electrical, plumbing and mechanical drawings; (709) read meters and charts accurately; (724) maintain records according to established procedures; (741) work unsupervised for extended periods of time; (745) develop and maintain effective working relationships with associates, supervisors, officials, and general public; (756) be consistently at work and on time, follow instructions, respond to management direction, and solicit feedback to improve performance; (758) adjust to different tools and working conditions during the course of work shift; (767) perform physically demanding work for long periods of time under varying weather conditions and on energized equipment and around noxious odors, fumes, noises, in confined spaces and from heights; (773) Operation of mechanical equipment associated with the various responsibilities of this position; (774) operate and maintain light and heavy-duty electronic construction equipment; (781) work evenings, nights, holidays, and weekends; (811) courtesy and patience; (812) compassion, empathy, and respect for the dignity of others.

QUALIFICATIONS: An example of acceptable qualifications:

Position requires a high school diploma; maintenance / controls apprenticeship, or an Associate's Degree in Industrial Instrumentation and Controls or Electrical Engineering preferred, preferred experience in maintenance and repair of large generators, substations, switchgear, electric and gasoline engines, and associated power plant equipment or an equivalent combination of education (substation/electrical/PLC), experience, and training which provides the required knowledge, skills, and abilities. Experience in the operation of protective relay systems and SCADA systems a must.

LICENSURE OR CERTIFICATION REQUIREMENTS:

A valid driver's license. Protective relay maintenance training. Will be required to successfully complete Northwest Lineman College Substation Certification Program.

WORKING CONDITIONS:

Facility and Work Area:

The work is performed in the field under various working conditions. Often exposed to noise, dust, heat and other elements, with none continuously present to the extent of being disagreeable.

Physical and Environmental Characteristics:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. This is a field position with employee working in a semi-controlled environment. Employee routinely performs his/her duties in the field at work projects.

The employee:

- Considerable bending, stooping, and climbing associated with daily duties.
- Must be able to climb ladders, climb to and work off of elevated platforms, ladders and walkways and at various heights in lifts.
- Frequently required to sit; walk; talk or hear; use hands to finger, handle, feel or operate objects, tools, or controls; and reach with hands and arms.
- Performs a moderate amount of physical demand; frequent lifting or moving of lightweight materials, or periodic lifting of or moving of average weight materials or occasional lifting or moving of heavy weight materials (75 to 100 pounds).
- Works in confined spaces, around noxious odors and fumes and some overhead and underground construction.
- Works in inclement weather and around energized electrical equipment.
- Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and the ability to adjust focus. Must be able to distinguish letters, numbers and symbols;
- Note: In accordance with the U.S. Department of Labor physical demands strength ratings, this is considered medium work.
- In cases of emergency, unpredictable situations, and/or department needs, the employee may be required to lift, push, pull, and/or carry objects heavier than D.O.L. strength ratings recommend.