

APPRENTICE ELECTRICIAN
SEASONAL (1,000 HOURS)
BURKE-DIVIDE ELECTRIC COOPERATIVE, INC.

1 POSITION FUNCTION:

To assist the Master/Journey Electricians in providing effective and efficient wiring, installation and maintenance on electrical services and equipment for consumers with supervision in a safe, logical manner complying with all electrical codes and safety regulations.

- a) Assists with electrical installation and maintenance activities at the job site as per the instructions of the in-charge electrician.
- b) Assists with electrical maintenance, installation, repairs at Cooperative offices, shops and warehouses.
- c) Assists with locates of consumers secondary lines and provides the correct documentation to the office staff to assure proper billing.
- d) Informs the immediate supervisor and the general manager, of conditions which are unsafe or prevent the proper operation of completed installations so that the Cooperative can assist consumers in correcting hazardous conditions.
- e) Assists with physical inventory of all electrician parts in a timely manner.
- f) Makes frequent checks of tools and protective equipment and attends and participates in safety meetings to become aware of safety rules and regulations and to help assure that safe working practices are followed and a safe working environment exists for the individual, fellow employees and consumers.
- g) Keeps fully informed of established state and national electrical codes and keeps up to date on required testing and licensing to assure that the Cooperative is meeting the necessary regulations and requirements.

2 RESPONSIBILITIES AND AUTHORITIES

Within the limits of approved BDEC policies, operating guides and procedures, Apprentice Electricians are required to assist the electrician to do a wide range of jobs on numerous electrical and electro-mechanical pieces of equipment. Equipment may include, but is not limited to, low and medium-voltage motorized breakers, motors up to 6,000 horsepower, load centers, switch gear, electrostatic precipitator controllers, soot blower systems, fire protection systems, communications systems, grounding systems, lighting systems, heating and cooling systems, elevators, and generator excitation equipment.

With respect to the systems and equipment listed above, the following duties are performed:

- a) Inspection of the equipment and systems, including, but not limited to, the following duties:
 - a. using sight, hearing, and the sense of touch and smell to examine the equipment and systems for defects and operating modes outside normal parameters
 - b. using test equipment, control schematics, and other tools to examine the equipment and systems for root cause of defects and operation outside design parameters or to compare actual system design to engineering drawings and other schematics
 - c. dismantling, troubleshooting, and reassembling equipment and systems to examine parts that cannot be examined when the equipment is intact

- d. identifying root cause of defects and failures and recommending repairs or other measures to eliminate the defect or failure
 - e. maintaining clearance orders as appropriate
- b) Assisting in the Installation of equipment and systems, including, but not limited to, the following duties:
- a. rewiring equipment and systems
 - b. cutting, threading, and bending conduit
 - c. installing new wiring and cables in equipment and systems along raceways and other paths
 - d. connecting equipment and systems to power sources
 - e. fabricate and install brackets, hangers, and panels for equipment and systems
 - f. rigging, lifting, and bracing heavy motors and other equipment in its designed location
 - g. returning the equipment and systems to service
 - h. maintaining clearance orders as appropriate
- c) Assist with the Removal of equipment and systems, including, but not limited to, the following duties:
- a. using hand tools, cranes, forklifts, rigging, and other tools and equipment to remove brackets, hangers, and panels and to remove specific equipment from its normal location
 - b. disconnecting wiring from the equipment and systems on which work is done
 - c. dismantling equipment and systems to facilitate inspection, repair, and replacement
 - d. maintaining clearance orders as appropriate.
- d) Assist with repairing equipment and systems, including, but not limited to the following duties:
- a. replacing defective parts
 - b. fabricating parts as needed
 - c. temporarily bypassing defects to assure operation of equipment and systems
 - d. returning the equipment and systems to normal operation
 - e. maintaining clearance orders as appropriate
 - f. safely operating equipment, including, but not limited to, the following:
 - g. rigging
 - h. hoists
 - i. mobile and overhead cranes
 - j. forklifts
 - k. mechanical work platforms
 - l. megger
 - m. dole test equipment
 - n. high potential test equipment
 - o. relay test equipment
 - p. digital and analog multi-meters
 - q. oscilloscope
 - r. amp meters
 - s. telephones
 - t. two-way radios
 - u. respirators
 - v. cars and utility vehicles
 - w. aerial lifts
 - x. computer and terminal
 - y. miscellaneous hand tools and hydraulic tools

J. Miscellaneous duties include, but are not limited to:

1. contributing to overall plant safety by adhering to safety standards
2. keeping personal work areas clean and free of safety hazards
3. providing assistance with the Cooperative's Annual Meeting
4. performing other duties as assigned

3 WORKING CONDITIONS

The work is highly technical and analytical in nature. It requires excellent eye/hand coordination and the ability to work with small components and delicate instruments. The work requires extensive walking, climbing, crawling, bending, and working in awkward positions. The work also requires the application of independent reasoned judgements, mechanical aptitude, and abstract reasoning pertaining to the identification, analysis, evaluation, and disposition of the job duties listed above. In addition, the employee may be required to work in high or confined places and may be exposed to extremes of temperature, noise, dust, fumes and high voltages. The work will be both indoors and outdoors. The employee must be able to adapt to revised schedules and long hours of work, manage changes in methods and priorities of work, and deal with disputes professionally.

4 RESPONSIBILITY/ACCOUNTABILITY

The employee will be accountable for safely and satisfactorily completing jobs as assigned. The employee will be responsible for analyzing all requirements to complete a job, recognizing impediments to satisfactory completion, and seeking guidance when needed.

5 QUALIFICATIONS

- a) High school diploma or equivalent required.
- b) Training from a vocational/technical school in electrical wiring or similar program and/or previous electrical experience is preferred.
- c) Current North Dakota Apprentice Electrician License.
- d) Valid North Dakota Driver's License. A Class A CDL is preferred but not required. Must have and maintain an insurable driving record.
- e) Hours accrued at this job may be used as part of the on-the-job training required to obtain Journeyman Electrician status.

5 JOB KNOWLEDGE

Must be willing to learn electrical wiring principles and techniques, National Electric Code and local requirements, and applicable OSHA regulations. Must have sound knowledge of the proper and safe use of the tools and equipment used in the wiring craft. Must have a thorough knowledge of first aid and CPR.

6 ABILITIES AND SKILLS

Must be able to learn the skills in the use of wiring tools and techniques. Must be able to apply knowledge of code requirements to field conditions. Ability to operate a trencher, backhoe, digger/derrick, bucket truck and vehicles used for towing preferred.

7 PHYSICAL REQUIREMENTS

Heavy work requiring exertion of up to 100 pounds of force occasionally and/or up to 50 pounds of force more frequently and or/up to 20 pounds of force constantly to move objects. Lifting and carrying of 10 to 50 pounds occasionally. Reaching and lifting overhead is required. Job requires standing, crawling, climbing, bending, and pulling majority of the time. Variety of inside and outside environments. Exposure to varying temperature conditions, including cold below 32 degrees and heat above 100 degrees. Includes exposure to mechanical hazards, electrical hazards, burns, confined space, radiant heat, work at heights and operating machinery. Some exposure to fumes, odors, gases, chemicals, dust and dirt. Must be able to read, write, do arithmetic and communicate with others. Safety equipment required.

8 PERSONAL CHARACTERISTICS

Performs the essential functions and elements of this position competently, following an initial orientation period. Work may be varied; problems are difficult, and methods and procedures are defined, and judgment is required to apply them to work. Personal characteristics to include: problem-solving skills, positive attitude, high integrity, good personal habits, good work habits, courteous and friendly, able to work well with diverse groups of people and teams, and gain and maintain respect of others, both inside and outside the Cooperative.

9 WORKING RELATIONSHIPS

Contacts are both internal and external. Employees are expected to provide helpful, courteous assistance and service to members and the public and to maintain harmonious, courteous and understanding relationships, while fostering a collaborative teamwork environment with other employees.