

BPA APPRENTICE PROGRAM INFORMATION SHEET

SUBSTATION OPERATOR

- Do you want to be responsible for the operation of multi-million dollar pieces of equipment?
- Do you enjoy working alone in remote locations?
- Do you take pride in being able to work under extreme pressure?

Bonneville Power Administration (BPA) Substation Operator Apprentices are trained to take responsibility for running one of BPA's 47 attended substations or a group of any of the 258 unattended substations in a service area that covers more than 300, 000 square miles. They learn to operate equipment in an electrical power transmission system substation.

The substation operator apprenticeship is a three and one half year training program designed to train a skilled substation operator for BPA. The apprentice works under the direct supervision of a journeyman substation operator. The journeyman will give the apprentice simple tasks to perform at first, and as the apprentice's skills develop, assign more complex tasks. The apprentice will be trained to perform any task expected of a substation operator. The skills required as a journeyman are varied and complex. The substation operator must have a good working knowledge of power system equipment such as power circuit breakers, transformers, relays, meters, and other high voltage electrical equipment; a complete understanding of the ability to apply BPA safety practices and rules; and an extensive knowledge of high voltage electrical system operation and the ability to apply that knowledge to daily events.

Safety is a primary concern. The electrical, mechanical and chemical hazards involved in the work require exacting procedures and processes which must be applied to the work situation. The electrical system is energized at voltages, which range from 13,000 volts to 500,000 volts. Equipment has large moving parts and may have hydraulics or compressed air at pressures up to 4000 pounds per square inch. Chemical hazards in the form of battery acid, mercury, herbicides, among others, may be present in the work environment. In order to obtain this exacting training, the apprentice is assigned to different locations on the power system. This requires extensive travel, and time away from the apprentice's headquarters station.

You will receive on-the-job training in an operations district while working with journeyman operators. In addition, you will receive classroom instruction (while receiving full pay and benefits) during each of your 6-month training periods. Classroom instruction will develop your knowledge in a variety of subjects, including electrical theory, hydraulics, pneumatics, and electrical safety.

At the completion of the apprenticeship, the individual will be assigned to their first permanent duty station, which may be located anywhere in the BPA service area: Oregon, Washington, Idaho, and western Montana. After the initial assignment as journeyman substation operator, the employee may apply on jobs that are at locations of interest as they become vacant.

The substation operator works both indoors and outdoors under all prevailing weather conditions during the day or night. Hazards include working around high voltage equipment and machinery with moving parts. The substation operator may work at heights up to 60 feet from ladders, platforms, scaffolding, stairs, etc. The possibility of explosion or fire is ever-present.

- All substation operators or apprentices for the BPA must adhere to the following working conditions.
- Work with hazardous materials such as acids, PCBs, pesticides, asbestos, mercury, solvents, to name a few. Safe working procedures are established and must be followed.
- Work close to energized high voltage equipment. Work safely and efficiently without endangering yourself or others. Each substation operator apprentice receives training to work safely and is periodically tested to insure they have a thorough understanding of safe working procedures.
- Respond to emergency call-outs, which may occur in the middle of the night or on holidays during all weather conditions.
- Each operator or apprentice must possess a valid state driver's license and a good driving record. This is a condition of employment, and loss of driving privileges may be cause for dismissal.
- Live within one-hour commuting distance from your assigned headquarters.
- Apprentices are expected to progress at a pre-defined rate. To do so requires more than doing eight hours of on-the-job training. Successful apprentices spend approximately eight hours of their own time each week studying apprenticeship materials. Failure to make suitable progress in the apprenticeship program is a cause for dismissal from the program.

Journeyman substation operator's work alone, much of the time at remote locations, during all hours and weather conditions. Most are very mobile and drive many miles each day in accomplishing their tasks.

Candidates for all BPA apprenticeship programs are selected in accordance with competitive Civil Service procedures.

For information regarding the application process, please contact the Employment Center at any of the following numbers.

Toll Free **1-877-975-4272**

Portland, OR 503-230-3055