

ELECTRIC STATION OPERATOR, 5224

Summary of Duties : Receives training and works as a trainee under close supervision doing routine inspection, cleaning, meter reading, and operating electric and auxiliary equipment in hydroelectric generating plants, substations, or D.C. converter stations, occasionally doing switching under direction; or under direction, operates a switchboard controlling the functioning of electric equipment and lines in a hydroelectric power generating plant or in a substation or D.C. converter station; and does related work.

Distinguishing Features : The class of Electric Station Operator is the entry level in electric station operation and hydroelectric generating plants. Employees of this class will initially be assigned to a training position to receive intensive on-the-job and classroom training, and must successfully complete the training program within a specified period of time. Upon completion of the training program, an employee will be assigned to a permanent Electric Station Operator position.

The trainee is mainly responsible for learning the activities required for the operating and maintenance of electric stations and must be able to recognize the hazards of working around energized electric equipment and to meet emergencies. The work differs from that of a journey-level operator in that a trainee only operates a switchboard under the direction of supervising personnel and is concerned primarily with learning the safe and proper conduct of this work. A journey-level operator is responsible for the operation, inspection, and running maintenance of the equipment in electric stations and hydroelectric power generating plants.

Routine duties are performed in accordance with general operating orders, station bulletins, or operating schedules. In emergencies, a journey-level operator executes emergency switching orders until normal conditions are restored. An employee of this class may schedule, assign, and direct the work of other Electric Station Operators and may be responsible for all the operations of a station at any given time and must maintain a safe work environment to the extent possible.

Examples of Duties : Works initially as a trainee, under close supervision, performing routine tasks and working towards the level of skill required to operate equipment without direct supervision; assists journey-level operators in switching procedures in control rooms and in switching yards; works on cleaning crews in electric stations; reads meters and gauges as directed; learns the physical layout of receiving and distributing stations; participates in classroom and on-the-job training, and receives instructions on the instrument and control simulators;

Under close supervision, makes regular inspections of equipment in hydroelectric generating stations and electrical substations for cleanliness and safe and proper operation and notes any irregularities which exist; takes periodic readings of indicating meters, recording meters, and other plant and station meters; changes charts and records the data on a log sheet; checks log of preceding shift in order to continue any work and maintains protection of clearances; may tag circuits, switches, and valves where clearances have been issued or on which workers are working; examines test, maintenance, or construction work to ascertain abnormal

conditions and assists in correcting such conditions;

Assists in making routine maintenance repairs to electric and hydraulic equipment; assists operator in necessary switching and related operations in executing emergency orders; performs or assists in performing operations affecting generators, pumping equipment, and other types of generating station, and auxiliary equipment; manually operates disconnect and grounding switches for clearances; assists in making tests of carrier current equipment;

Cleans and lubricates electric and mechanical equipment; checks batteries by making routine readings of temperatures, specific gravities, and voltages; replaces burned out indicating switchboard lights; when instructed, starts or stops motor generator sets and operates or isolates circuits of various voltages; performs, on instruction, necessary operating and switching function to maintain service, and/or meet emergencies.

Supervises or participates, as a journey-level employee, in the above work; operates power switchboard and auxiliary apparatus in electric plant stations, and switching yards; maintains log of shift operations including switching operations, clearances, dispatching, outages, failures, and emergency work performed; calculates daily gross and net kilowatt output; reports trouble and equipment damage to a supervisor or Load Dispatcher; ascertains abnormal conditions and makes corrections as directed in operating orders, station instruction bulletins; and other operating procedures; supervises or performs operations to correct overloaded conditions of transformers and lines; regulates the flow of water in the aqueduct to meet Water System requirements; maintains contact with supervising operator or Load Dispatcher and executes or supervises the execution of emergency orders; acts as power load dispatcher and central telephone dispatcher in designated areas; takes independent action when required in emergency situations;

Assumes control at local switchboards in failures of remote control equipment and as ordered by supervisor; issues clearances to workers and places equipment in service upon release of clearance; issues work orders and specific instructions regarding switching operations and equipment inspection; checks and signs daily reports and time sheets for employees assigned to the same station; maintains record file of service, inspection, test, and overhaul of station apparatus and equipment; maintains inventories of supplies and orders replacements; maintains records of switching assignments received from Load Dispatcher; may receive dispatch orders from another utility and issue all clearances for points in designated areas; issues switching orders pertaining to load allocation and operation of high voltage lines and equipment to operating personnel in a large power plant control room and to operators in main-switching stations; assists in the preparation and conduct of training courses for new and regular operators; and may occasionally be assigned to other duties for training purposes or to meet technological changes or emergencies.

Qualifications: Trainee-level positions require a general knowledge of safe practices and the hazards of working near energized equipment; the ability to learn the operating principles of indicating and recording instruments, the types and functions of the generation and transmission equipment and electrical circuitry; the ability to perform general cleaning and routine repairs to generating and distributing equipment; the ability to use good judgment and take appropriate action in emergencies; the ability to understand and follow written and oral instructions;

and the ability to keep records, make reports, and perform arithmetical calculations.

Journey-level positions require the knowledges and abilities earlier listed in addition to a good knowledge of safe practices and the hazards of working near energized equipment; a good knowledge of department operating procedures and regulations governing the issuance of clearances, switching and emergency operations; a working knowledge of operating features of all electrical, mechanical, and hydraulic equipment in hydroelectric generating plants and receiving and distributing stations; a working knowledge of the general layout, equipment, functions, and capacity of the City's electric transmission and distribution system; a working knowledge of principles of electricity as related to its generation and the operation of plants and stations; a working knowledge of methods, materials and supplies necessary to operate and maintain hydroelectric generating plants and receiving and distributing stations; a working knowledge of methods of cleaning, servicing, and making routine repairs to electrical equipment; a general knowledge of memoranda of understanding applicable to subordinate personnel; the ability to deal tactfully and effectively with governmental officials, other employees, and the public; and the ability to recognize the need for maintenance or repair and make appropriate recommendations.

One year of experience in electrical generating and distributing equipment such as found on board ships or in a steam electrical generating plant; or six semester or eight quarter units in electrical or mechanical subjects at a recognized school of college level or at a recognized trade school; or a one year high school level course in physics, electricity, or general physical science is required for Electric Station Operator.

License: A valid California driver's license may be required.

Physical Requirements: Strength to perform average lifting up to 35\pounds and occasionally over 70 pounds; body agility involved in activities such as climbing; good hearing ability; good eyesight; and good color perception.

Persons with medical limitations may, with reasonable accommodations, be capable of performing the duties of some of the positions in this class. Such determination must be made on an individual basis in light of the person's limitations, the requirements of the position, and the appointing authority's ability to effect reasonable accommodations to the limitations.

As provided in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare what the duties and responsibilities of any position shall be.