



UNION JOB DESCRIPTION

TITLE: Generation System Operator

DEFINITION:

Works with Generation personnel in the operation, maintenance, and storeroom functions of hydroelectric and other generation projects, including power plants, dams, reservoirs, control systems, and flow control gates in accordance with safety standards, license requirements, and Federal, State, and local regulations. This position reports to the Generation Superintendent or his/her designee.

DISTINGUISHING CHARACTERISTICS:

The Generation System Operator works with District personnel ensuring safety rules, FERC license requirements, and regulations are followed. The Generation System Operator must be able to perform the operational aspects of the duties of the Generation, Electrical Technician, Electrical, and Mechanical Constructors and other similar and incidental duties. The Generation System Operator assists the Superintendent or his/her designee in investigating special projects for workability, control, safety and equipment needs.

Incumbents in this classification assigned to the Jackson Hydroelectric Project are required to establish their residence so they will be able to report to work within the timeframe required in the current Collective Bargaining Agreement (CBA).

This position shall be filled through a joint labor/management interview committee. The District will select the most senior candidate based on unit seniority who has successfully passed both the testing and interview.

BASIC RESPONSIBILITIES:

1. Operator on duty, accountable for the proper operation of hydroelectric and other generation projects, including:
 - a. Understands, schedules and coordinates updates to software and control systems and alarms, and associated documentation, for the operational control of the District's hydroelectric and other generating facilities;
 - b. Understands, monitors and maintains required water delivery flows for water supply and for fisheries habitat
 - c. Starts, stops, and mixes generation resources within operational constraints to meet scheduled electricity delivery requirements, including operating one or more Projects or systems in "local" or "manual" control;
 - d. Collaboratively schedules, increases, decreases and transfers load of generating units;
 - e. Documents operational changes in plant functions
 - f. Understands, responds timely, diagnoses, resolves, and coordinates correction / repair / replacement of any and all controls / sensors / alarms that demonstrate any portion of a generating system or ancillary function being in distress or requires correction to meet operational requirements;
 - g. Communicates with Generation Superintendent and staff and other District departments regarding requirements and implementation of NERC and FERC requirements and all other matters pertaining the operation of the hydroelectric and generation projects.
2. Tests or researches new equipment. Determines repairs or improvements to obsolete or defective equipment.
3. Ensures that all control modifications to station equipment are recorded for updating of blueprints and schematics. Maintains accurate records of all Project tests, inspections and repairs.
4. Maintains accurate daily plant operating log. Diagnoses each "trouble" cause, takes corrective action, and prepares "trouble" report.

BASIC RESPONSIBILITIES (continued):

5. Performs routine inspections and maintenance of plant operational controls, structures, dams, spillways, fishways, and service installations. Performs housekeeping and operational changes, e.g. voltage levels, generation output and water valve settings, as required.
6. May serve as the lock out/tag out coordinator and performs switching and tagging of appropriate equipment following established-switching, and lockout/tag-out procedures. Observes that operational changes occur; e.g. voltage levels, generation output to maintain generation schedules and to maintain water flows as required.

OTHER RESPONSIBILITIES:

1. Assists Generation department staff as duties allow.
2. Supports contracted and District crews assigned to assist in the installation and maintenance of electrical and mechanical equipment and associated powerhouse machinery.
3. Acts as the District's representative to other District departments, other government agencies, and the public, conducting tours of the power plants and switchyards as scheduled by the District.
4. Performs associated duties as assigned.

MINIMUM QUALIFICATIONS:

Knowledge of:

- Actual and theoretical operation of generation project operations, features, and equipment.
- Standard mechanical and electrical concepts and theories.
- Standard mechanical drawing code numbers.
- Safety rules and procedures when working near energized equipment, all Federal, State, and local regulations governing operation of an electrical facility.
- Related computer equipment and software.

Ability to:

- Perform basic math computations on a calculator or computer.
- Operate power-generating units, control panels, computer terminals, related software and auxiliary equipment.
- Recognize and analyze equipment malfunctions and take appropriate action during emergency situations.
- Work independently.
- Communicate and work effectively with Generation Department personnel, other District personnel, the public, and outside agencies.
- Read blueprints and schematics, and work from equipment instruction books, mechanical or electrical drawings and/or sketches as guides for equipment maintenance, modification, or installation.

MINIMUM QUALIFICATIONS (continued):

- Communicate effectively both orally and in writing.
- Maintain compliance with administrative and safety rules and procedures, and government regulations.
- Climb stairs in excess of 200 feet.
- Lift and carry equipment and materials up to 50 pounds.
- Work in elevated positions.
- Operate cranes and equipment/tools required to perform job duties.

Ability to:

- Learn and apply FERC License and approved NERC/WECC standards of operations. (basic knowledge)
- Physically perform duties of job, walk on varying terrain, work in varying weather environments and varying noise levels.
- Learn and apply District Accident Prevention Manual and WAC Electrical Safety Rules.
- Learn and apply District safety requirements; First Aid and CPR methods.
- Learn and apply Collective Bargaining Agreement.
- Learn and apply District Policies, Procedures and Directives.

Education/Experience:

- Four (4) years' experience in a hydroelectric plant as a hydroelectric plant mechanic, hydroelectric plant electrician, or equivalent experience in plant maintenance.
or
- Five (5) years' experience in an Operator position in hydroelectric or other generation or fluid flow-related plant(s) of similar complexity, including planning and preparation of project maintenance.

License, Certification and/or Testing:

- Successful completion of an interview process.
- Valid Washington State Driver License.
- Valid Washington State Class A Commercial Driver License required within six (6) months from start of job with maintenance thereafter.
- First Aid, CPR, and forklift certification required within six (6) months from start of job with maintenance thereafter.
- Be granted unrestricted respirator clearance within six (6) months from start of job with maintenance thereafter.
- Successful completion of 2-year training program including passing scores on the Generation Operator tests. This requirement is waived if candidate meets minimum qualifications as stated above.

WORKING CONDITIONS:

- Work is performed in an indoor and outdoor environment in varying weather conditions.
- Work may be performed independently and alone, with infrequent face-to-face contact with other employees, and may only have contact with District staff via radio.
- Incumbent is exposed to varying weather conditions, varying noise levels and may be exposed to wild animals.
- Work will frequently occur in and around lakes and rivers.
- Employees risk physical hazard from energized equipment and circuits.
- Incumbent may be exposed to loud noises from turbines and machinery.
- Incumbent must be able to: lift and carry equipment and materials up to 50 pounds; climb stairs in excess of 200 feet; and work in elevated positions.
- Incumbent may be exposed to hazardous chemicals used in the cleaning and maintenance related hydroelectric components.
- This position may be required to work non-standard hours and respond to call-outs as emergency conditions dictate.
- Required driving to various generation projects, meetings and training sessions.