



Hydroelectric Operator Job Description

- Position:** Hydroelectric Operator
- Department:** Operations
- Wage Range:** Range 25: \$32.68 to \$40.82 per hour
- Reports to:** Operations and Maintenance Superintendent
- Employee Status:** Full-time with on-call and revolving schedule
- Benefits:** CalPERS Pension, Employee-paid 457 Deferred Compensation / Roth, Health, Vision, Life Insurance, and Dental.

SUMMARY:

- Under minimal supervision, delivers irrigation water to agricultural contractors and maintains water flows to Murphys and Angels Powerhouses.
- Will repair and maintain turbines and all mechanics relating to the generation of power.
- Understand and report documentation for water flows and power capacities.
- Must work with others in a tactful, respectful, and courteous manner.
- Must be a team player and interact with the public in different situations.

ESSENTIAL DUTIES, including but not limited to:

- Respond to operational needs outside regular business hours, including evenings, weekends, holidays, and on-call rotations.
- Assist with installation, repair, and maintenance of water delivery system devices, not limited to dump-gates, trash rakes, siphon systems, flumes, and grizzlies.

- Clear vegetation.
- Assist with contractor needs.
- Complete Logbooks of staff readings, reservoirs, and leakage weirs.
- Clean and lubricate gates and valves.
- Remove any debris inside the canals and flumes, including rocks, trees, and brush.
- Log all spillway usages as to approximate amount spilled and date of spill.
- Regulate upcountry reservoirs and diversions to maintain a full safe head of the drawdown curve provided by the hydrographer.
- Read and record water loggers and AVMs.
- Check battery voltages and replace when necessary.
- Foot patrol of all flume and canal systems.
- Report and document end-of-day activities.
- Patrol Murphys and Angels penstock, per Supporting Technical Information Document Standard Operating Procedure.
- Operate and maintain powerhouses.
- Have the ability to start and shut down turbine units.
- Adjust the plants to water flows consistently.
- Capable of mathematical water flows and adjusting the water delivery system accordingly within various system requirements, for minimum and maximum flows.
- Report and log all outages and water losses in regards to outages.
- Responsible for understanding and application of Lock Out Tag Out processes and procedures.

ADDITIONAL DUTIES:

- Perform other related duties as assigned.

QUALIFICATIONS:

- Basic computer knowledge and skills.

- Basic construction knowledge and skills.
- Good mechanical aptitude.
- Electrical knowledge of high voltage is desirable.
- SCADA system knowledge is desirable.
- DCS and PLC knowledge is desirable.
- Knowledge of automation and control loops is desirable.

EDUCATION/EXPERIENCE:

- High school diploma required.

LANGUAGE SKILLS:

- Reading and writing abilities (English).
- Must communicate and document daily readings and log book entries.

MATHEMATICAL SKILLS:

- Must be able to calculate water flows and power capacities.

REASONING ABILITIES:

- Analyze problems in the delivery system and take corrective action.
- Ability to follow oral and written directions.
- Communicate orally with Authority staff in face-to-face, one-on-one, and group settings.

CERTIFICATES, LICENSES, REGISTRATIONS:

- Unrestricted California Driver's license and maintain an adequate driving record.

PHYSICAL DEMANDS:

- Ability to operate district vehicles and equipment, such as but not limited to chainsaws, weed eaters, winches, variety of hand tools.
- Must be able to carry, push, pull, reach, and lift equipment and parts weighing up to 50 lbs.
- Kneel, crouch, crawl, and climb during field maintenance and repair work.

- Stand and walk for extended periods of time.
- Hearing and vision within normal range.

WORK ENVIRONMENT:

- Extreme weather conditions.
- At times will work with exposure to dust, dirt, significant temperature changes between cold and heat, poison oak, heights, confined spaces, and flowing water.
- At times work in the vicinity of electrical potentials up to 20kv.

OTHER REQUIREMENTS:

- Capable of working in an office setting.
- Knowledge of standard office equipment.
- Must be a team-oriented employee willing to accomplish mission tasks for both the hydroelectric and water conveyance systems.
- Proficiency in using computers and software, including Microsoft Office Suite, Excel, Google Workspace applications, project management software, Adobe Acrobat, and other software programs used by the Authority to conduct operations.

ACKNOWLEDGEMENT

I have read and understand and agree to the responsibilities and requirements of the job. I further understand that the duties and responsibilities herein describe the general nature of the job and are subject to change or modification by my supervisor with or without notice. My supervisor may add, delete, assign, transfer or alter duties as necessary or deemed appropriate.

Employee Name: _____

Employee Signature: _____

Date: _____