

## NEVADA IRRIGATION DISTRICT

### SENIOR HYDROELECTRIC PLANT OPERATOR

Range B85 – BOD 10/10/12

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

#### DEFINITION

To organize, assign and review the work of assigned personnel engaged in operation and maintenance of the District's hydroelectric generation plant and the maintenance of water flows and lake levels necessary to operate the plant; to perform duties requiring specialized knowledge; and to provide administrative support to assigned supervisor.

#### DISTINGUISHING CHARACTERISTICS

This is the advanced journey level in the Hydroelectric Plant Operator series. Positions at this level are distinguished from other classes within the series by the level of responsibility assumed, complexity of duties assigned, independence of action taken, by the amount of time spent performing the duties, and by the nature of the public contact made. Employees perform the most difficult and responsible types of duties assigned to classes within this series, including providing technical and functional supervision over assigned personnel and ensuring the proper and safe operations of hydroelectric generation plant and related equipment. Employees at this level are required to be fully trained in all procedures related to assigned areas of responsibility.

#### SUPERVISION RECEIVED AND EXERCISED

Receives direction from Hydroelectric Generation Supervisor.

Exercises technical and functional supervision over assigned technical and maintenance personnel.

#### ESSENTIAL FUNCTION STATEMENTS

*Essential and other important responsibilities and duties may include, but are not limited to, the following:*

##### Essential Functions:

1. Plan, prioritize, and review the work of staff assigned to a variety of semi-skilled and skilled activities related to the operation and servicing of the District's hydroelectric generation plants and related equipment and regulation of water flows and lake levels.
2. Develop schedules and methods to accomplish assignments ensuring work is completed in a timely and efficient manner.
3. Participate in evaluating the activities of staff, recommending improvements and modifications.

## NEVADA IRRIGATION DISTRICT

### Senior Hydroelectric Plant Operator

#### Essential Functions: *(Continued)*

4. Provide and coordinate staff training; work with employees to correct deficiencies.
5. Write, perform and direct auto tests on hydroelectric generation plants.
6. Prepare code switching orders; maintain operating diagrams; direct or perform switching.
7. Inspect and operate District hydroelectric generating facilities; perform minor maintenance tasks; read, record, and report electrical and water flow data; report abnormal conditions to supervisor.
8. Start up and shutdown hydroelectric power house generators; operate and inspect unattended generating facilities.
9. Prepare and implement switching orders; prepare generators for clearance using lockout/tagout procedures ensuring a safe working environment.
10. Perform routine electrical, mechanical and building maintenance tasks associated with hydroelectric plant, substations, water collection and delivery systems and related facilities.
11. Perform the most difficult work related to the operation and servicing of hydroelectric generation plant.
12. Build and maintain positive working relationships with co-workers, other District employees and the public using principles of good customer service.
13. Perform related duties as assigned.

## QUALIFICATIONS

#### Knowledge of:

Principles and practices of technical and functional supervision and training.

Hydraulics and water properties.

Operating parameters and basic services practices associated with generators, turbines, high voltage breakers, transformers, compressors, valves and pumps.

Operating practices associated with penstocks, water gates, canals, weirs, and other water control features of hydroelectric plants.

Calculations used to determine water flow, capacity, and total electric generation.

Electrical theory and safe use of electrical equipment.

Pertinent Federal, State and local laws, codes and regulations.

Reservoir, canal, flume and penstock layouts, capabilities and flow requirements.

Principles and practices of effective customer service.

Modern office equipment including use of applicable computer applications.

## **NEVADA IRRIGATION DISTRICT**

Senior Hydroelectric Plant Operator

### Ability to:

Provide technical and functional supervision over assigned staff; effectively train staff.

Perform the most complex duties related to the operation and servicing of a hydroelectric generation plant.

Inspect and correctly assess plant and component operations and conditions and make recommendations for limitations on operations.

Synchronize, start and shut down hydroelectric generating plants.

Accurately calculate water flow, capacity, generation and related values.

Read and interpret blue prints, gauges, dials and enunciators.

Perform routine servicing and maintenance of mechanical and electrical components of a hydroelectric plant.

Recognize and respond effectively to emergency situations.

Maintain accurate records, logs and reports.

Operate and use modern office equipment including a computer and applicable software.

Establish and maintain effective working relationships with those contacted in the course of work.

Communicate clearly and concisely, both orally and in writing.

Respond to after hours emergency situations.

Work after hours night call on normal workdays, weekends and holidays and be subject to callout.

### Responsibility to:

Obey safe work practices, procedures, and regulations including wearing protective equipment and safety devices.

Operate equipment in a careful and safe manner.

Acknowledge the use of safeguards by other employees.

Report any removal, displacement, damage, destruction, or tampering of safety devices, safeguards, notices or warnings.

Report any safety risks or hazards to your supervisor or other management personnel.

Report to your supervisor or other management personnel any work assignment that you feel would require you to perform the work in an unsafe manner.

## **EXPERIENCE AND EDUCATION GUIDELINES**

*Any combination of experience and education that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

### Experience:

Three years of responsible journey experience similar to Hydroelectric Plant Operator II with the Nevada Irrigation District.

### Education:

Equivalent to completion of the twelfth grade.

## **NEVADA IRRIGATION DISTRICT**

Senior Hydroelectric Plant Operator

### License and Certificate:

Possession of a valid California driver's license.

## **WORKING CONDITIONS**

### Environmental Conditions:

Work is performed in an outdoor environment on a year-round basis subject to outdoor weather conditions including extreme heat and cold and to wet, humid conditions, fumes and/or airborne particles. Duties may be performed near moving mechanical parts and on slippery and uneven surfaces with exposure to toxic or caustic chemicals and risk of electric shock.

### Physical Conditions:

Essential functions may require maintaining physical condition necessary to sit while studying or preparing reports; bend, squat, climb, kneel and twist when performing installation/repair of equipment; perform simple and power grasping, pushing, pulling, and fine manipulation; and lift or carry weight of 50 pounds or less.

### Mental Conditions:

Essential functions may require maintaining mental condition necessary to know and understand maintenance activities, and observe safety rules; intermittently analyze problem equipment; identify and locate equipment; interpret work orders; remember equipment location; and explain jobs to others; handle conflict.