

# NEVADA IRRIGATION DISTRICT

## Job Description

Job Title:	Supervising Electrical Systems Technician	Reports To:	Hydroelectric Maintenance Superintendent
Salary Range:	<a href="#">C30</a>	Approved by Board of Directors:	03/09/2022
2FLSA Status:	Non-exempt	Unit:	<a href="#">Supervisor</a>
<p><i>Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are <b>not</b> intended to reflect all duties performed within the job.</i></p>			

### **Definition**

To plan, organize, direct and supervise staff responsible for maintaining the electrical and electronic equipment associated with the operation of hydroelectric facilities within the Hydroelectric Department; to perform a variety of technical tasks related to the installation, maintenance, troubleshooting and repair of electrical, electronic, electro-mechanical equipment, and telecommunication equipment and instrumentation associated with the District's hydroelectric facilities; and to provide administrative support to assigned supervisor.

### **Supervision Received and Exercised**

Receives general direction from the Hydroelectric Maintenance Superintendent.

Exercises direct supervision over assigned technical personnel.

### **Essential Functions Statements**

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

1. Recommend and assist in the implementation of goals and objectives; establish schedules and methods for installing, maintaining, troubleshooting, and repairing a wide variety of equipment within the hydroelectric facilities; implement policies and procedures.
2. Plan, prioritize, assign, supervise and review the work of staff involved in the installation, troubleshooting, repair and maintenance of the hydroelectric and automotive equipment.
3. Evaluate operations and activities of assigned responsibilities; recommend improvements and modifications; prepare various reports on operations and activities.
4. Participate in budget preparation and administration; prepare cost estimates for budget recommendations; submit justifications for equipment, materials and supplies; monitor and control expenditure.
5. Participate in the selection of staff; provide or coordinate staff training; work with employees to correct deficiencies; conduct performance evaluations; implement discipline procedures.
6. Coordinate annual maintenance testing of hydroelectric facilities and operations; maintain accurate records and documents for audit purposes.
7. Prepare and submit required operations and regulatory reports related to hydroelectric operations.
8. Plan and schedule maintenance operations for upper division waterways and facilities.

9. Plan, schedule and coordinate outages with District crews and other agencies.
10. Order materials, parts, equipment and supplies.
11. Participate in semi-annual and annual facility safety inspections.
12. Answer questions and provide information to the public; investigate complaints and recommend corrective action as necessary to resolve complaints.
13. Build and maintain positive working relationships with co-workers, other District employees and the public using principles of good customer service.
14. Install, maintain, troubleshoot, and repair instrumentation, distributed control systems, programmable logic controllers, telecommunication systems, computer networking, electrical circuits, telephone wiring and electrical equipment associated with the operation of hydroelectric facilities, depending on assignment.
15. Create and maintain designs, schematics, and diagrams; read and interpret mechanical, electrical and hydraulic drawings.
16. Estimate time, materials, and equipment required for assigned jobs; research and order parts, materials, supplies and equipment necessary for repairs.
17. Program and operate a variety of complex test equipment used in troubleshooting complex equipment; monitor equipment performance to forecast possible failures.
18. Install, inspect, test, adjust, repair and maintain a variety of equipment in power stations including relays, generators, transformers, control equipment, wiring, motors, starters, governors, pressure switches, electronic and electro-mechanical equipment.
19. Perform related duties as assigned.

### **Qualifications**

#### **Knowledge of:**

- Principles and practices associated with the installation, troubleshooting, repair and maintenance of hydroelectric facilities. Advanced principles and practices, tools, and terminology used in the electrical, electronic, or telecommunication trade.
- Advanced principles and practices of installing, inspecting, troubleshooting and repairing electrical and electronic components or telecommunications.
- Advanced practices associated with the use, maintenance and troubleshooting of sophisticated testing equipment.
- Advanced applications, methods, standards and tools as they relate to the repair and maintenance of electronic, hydraulic and pneumatic power plant instrumentation and control systems.
- Applicable codes, regulations and procedures governing the electrical, electronic or telecommunication industry.
- Principles and practices of effective customer service.
- Data telecommunication between PC's, between PC's and RTU's and between RTU's and mainframes.
- Modern office equipment including use of applicable computer applications.
- Equipment, tools and materials used in maintaining hydroelectric facilities.

- Electrical and mechanical theory.
- Principles and practices of effective customer service.
- Modern office equipment including use of applicable computer applications.
- Principles and practices of supervision, training and performance evaluations.
- Principles and practices of budget monitoring.
- Principles and practices of safety management.
- Pertinent local, State and Federal laws, ordinances and rules.

Ability to:

- Organize, implement and direct staff involved in maintenance activities related to Hydroelectric facilities.
- Interpret and explain pertinent Federal, State, local rules and regulations, and department policies and procedures.
- Perform the more complex mechanical and electrical maintenance and repair of hydroelectric facilities.
- Assist in the development and monitoring of an assigned program budget.
- Develop and recommend policies and procedures related to assigned operations.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Communicate clearly and concisely, both orally and in writing.
- Provide technical and functional supervision over assigned staff; effectively train staff.
- Independently operate a variety of tools and equipment in a safe manner.
- Accurately estimate time, materials, equipment and alternating factors to complete assigned work.
- Respond quickly and calmly in emergency situations.
- Read a variety of technical documentation, schematics, blueprints and related documents.
- Ensure the safety of employees and equipment.
- Independently perform semi-skilled and skilled duties involving the installation, adjustment, maintenance, troubleshooting and repair of electrical, electronic, electro-mechanical equipment, instrumentation or telecommunications.
- Analyze complex electrical, electronic, electro-mechanical, or telecommunication systems.
- Accurately read blueprints, schematics, instrument diagrams and systems, part lists, schematics and diagrams to determine appropriate action.
- Troubleshoot, isolate and make repairs to electrical, electronic and electro-mechanical equipment, or telecommunications.
- Operate and maintain a variety of tools and equipment used in the testing and repair of equipment.
- Operate and use modern office equipment including a computer and applicable software.
- Respond to afterhours emergency situations.

Responsibility to:

- Report any safety risks or hazards to 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.
- 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.

Responsibility to ensure that all personnel under your supervision are:

- Obeying and promoting safe work practices.
- Properly trained in safe work practices and procedures.
- Utilizing proper protective equipment.
- Operating equipment properly.
- Acknowledging the use of safeguards by other employees.
- Reporting any removal, displacement, damage, destruction, or tampering of safety devices, safeguards, notices or warnings.
- Following OSHA regulations (OSHA requires that those in supervisory positions ensure subordinate personnel adhere to the appropriate safety procedures in performing all duties. Failure to provide proper supervision may result in civil and/or criminal sanctions for the District and the supervisor).

**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:

Five years of increasingly responsible experience in the installation, maintenance and repair of equipment associated with the operation of hydroelectric facilities; including one year providing technical and functional supervision over assigned personnel.

Education:

Equivalent to completion of the twelfth grade supplemented by electrical coursework, apprenticeship or certification.

License and Certificate:

Possession of a valid California driver's license.

**Working Conditions**

Environmental Conditions:

Work is normally performed in a temperature-controlled room environment subject to typical plant operation noise. Some duties require field visits in an outdoor environment subject to outdoor conditions including extreme heat and cold and 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 at desk for long periods of time; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; use telephone, write or use a keyboard to communicate through written means; and lift or carry weight of 50 pounds or less.

Mental Conditions:

Essential functions may require maintaining mental condition necessary to know and understand all aspects of the job; intermittently analyze work papers, reports and special projects; identify and interpret technical and numerical information; observe and problem solve operational and technical policy and procedures; interpret and explain laws, regulations, codes, policies and procedures; observe performance and evaluate staff; handle conflict.