

## NEVADA IRRIGATION DISTRICT

### WATER TREATMENT OPERATOR I WATER TREATMENT OPERATOR II WATER TREATMENT OPERATOR III Range A91/B11/B31 – 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 perform a wide variety of semi-skilled and skilled duties associated with the operation and maintenance of the District's water treatment systems; to support the production and storage of quality domestic water, ensuring compliance with regulatory requirements; and to perform related duties and responsibilities as assigned.

#### DISTINGUISHING CHARACTERISTICS

Water Treatment Operator I: This is the first certified level in the Water Treatment Operator series. Initially positions in this class typically have little or no directly related work experience achieving a Grade 1 within 12 months and a Grade 2 within 24 months. The Water Treatment Operator I is distinguished from the Water Treatment Operator II by the performance of basic tasks and duties assigned to positions within the series that do not require possession of a Water Treatment Operator Grade 2 certificate.

Water Treatment Operator II: This is the second certified level in the Water Treatment Operator series. The Water Treatment Operator II is distinguished from the Water Treatment Operator III by the performance of duties assigned to positions within the series that do not require possession of a Water Treatment Operator Grade 3 certificate. Positions in this class are flexibly staffed and are normally filled by advancement from the Water Treatment Operator I level once the appropriate certification is obtained and performance expectations are met.

Water Treatment Operator III: This is the full journey level in the Water Treatment Operator series where incumbents serve as Shift Operator. The Water Treatment Operator III is distinguished from the Water Treatment Operator II by the assignment of the full range of duties and is required to be fully trained in all procedures related to assigned area of responsibility and are able to independently serve as shift operator responsible for the safe operation of the District's treatment plants and portions of the distribution facilities as well as the monitoring of water quality. Positions in this class are flexibly staffed and are normally filled by advancement from the Water Treatment Operator II level once the appropriate certification is obtained and performance expectations are met. This class is further distinguished from the Chief Water Treatment Operator in that the latter is the advanced journey level and has responsibility for the overall interpretation and implementation of regulations as well as the more complex maintenance activities.

## NEVADA IRRIGATION DISTRICT

Water Treatment Operator I/II/III

### **SUPERVISION RECEIVED AND EXERCISED**

#### Water Treatment Operator I

Receives immediate supervision from the Water Treatment Supervisor; may receive technical supervision from a Water Treatment Operator III during an assigned shift. Receives technical and functional supervision from a Chief Water Treatment Operator.

#### Water Treatment Operator II

Receives close supervision from the Water Treatment Supervisor; may receive technical supervision from a Water Treatment Operator III during an assigned shift. Receives technical and functional supervision from a Chief Water Treatment Operator.

#### Water Treatment Operator III

Receives general supervision from the Water Treatment Supervisor; receives technical and functional supervision from a Chief Water Treatment Operator. May exercise technical supervision over less certified Water Treatment Plant Operators.

### **ESSENTIAL FUNCTION STATEMENTS**

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

#### Essential Functions:

1. Perform assigned treatment plant rounds inspecting, monitoring and documenting plant equipment gauges, dials, graphs, and other instrumentation to ensure storage and treatment of water meets local, State, and Federal rules and regulations.
2. Collect samples and conduct laboratory analysis of water quality, including, but not limited to, pH, chlorine, turbidity, bacteriological monitoring, and chemical dosing to ensure adequate and proper chemical application according to regulations and guidelines; make necessary operational adjustments in response to test results.
3. Monitor water quality and the collection of bacteriological samples in the distribution system.
4. Maintain, compile, and update plant operating logs and computerized reports as required by law related to water treatment plant operational activities; perform and record water treatment related mathematical calculations as needed.

## NEVADA IRRIGATION DISTRICT

### Water Treatment Operator I/II/III

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

5. Conduct inspections of treatment plant equipment to determine required maintenance and repair activities; perform the more routine maintenance, repair and servicing of plant operation machinery and equipment including pumps, valves, motors, feeders, tanks and reservoirs; perform preventative maintenance repairs or schedule repairs as required.
6. Conduct inspection of treatment plant to ensure plant is maintained in a clean and orderly fashion; perform sludge basin and reservoir cleaning; perform filter maintenance including back washing, media replacement and chemical treatment; ensure safe and proper handling and storage of treatment related materials.
7. Operate and maintain onsite chlorine generation stations within the District's distribution system; maintain chlorine booster stations and storage tank sites; conduct monthly tank inspections.
8. Respond to emergency situations; answer questions, respond to inquiries, and resolve conflicts from the public relating to water treatment activities.
9. Assess and appropriately and quickly respond to operational issues; ensure adherence to safe work practices during assigned shift.
10. Troubleshoot and assist less certified staff with questions regarding appropriate plant procedures, operations and maintenance activities as required by local, State, and Federal rules and regulations; oversee the work of outside contractors.
11. Grade III Operators provide technical supervision and training to less certified staff on an assigned shift.
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

### Water Treatment Operator I

## NEVADA IRRIGATION DISTRICT

### Water Treatment Operator I/II/III

#### Knowledge of:

Purpose and use of general construction and power tools.  
Elementary mechanical principles and practices.  
Basic arithmetic to perform calculations.  
Principles and practices of effective customer service.  
Modern office equipment including use of applicable computer applications.

#### Ability to:

Learn basic principles and procedures related to the operation and maintenance of a water treatment plant.  
Learn sampling methods and techniques.  
Learn principles of biology, chemistry, and mathematics.  
Learn policies and procedures governing water treatment facilities.  
Learn to perform skilled tasks associated with the operation and maintenance of water treatment facilities.  
Learn to read meters and gauges accurately.  
Learn to maintain accurate records and logs.  
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.

#### 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:

Previous experience in the operation of a potable water treatment plant.

## NEVADA IRRIGATION DISTRICT

### Water Treatment Operator I/II/III

#### Education:

Equivalent to completion of the twelfth grade supplemented by education as required by the State of California Department of Public Health to obtain and retain a Water Treatment Operators Certificate, Grade (T1).

#### License and Certificate:

Possession of a valid California driver's license.

Possession of a California Department of Public Health Water Treatment Operators Certificate, Grade 1 (T1) within 12 months of appointment and a Grade 2 (T2) within 24 months.

### Water Treatment Operator II

In addition to the qualifications for the Water Treatment Operator I:

#### Knowledge of:

Principles and practices associated with operating a water treatment plant and associated facilities.

Equipment used in the maintenance and operation of water treatment facilities.

Elementary electrical and hydraulic principles.

Basic principles of biology, chemistry, and mathematics.

Basic sampling and water quality testing methods and techniques.

Basic drinking water standards and regulations.

Basic water treatment and distribution practices and procedures.

Proper handling of hazardous materials.

#### Ability to:

Document and maintain accurate reports and records.

Perform routine physical and chemical tests of water.

Perform skilled tasks associated with the operation and maintenance of water treatment facilities.

Learn to assess the condition and maintenance requirements of water treatment facilities.

Read gauges, meters, and other electrical instrumentation devices including a treatment plant SCADA system.

Apply District policies and procedures governing water treatment facilities.

Work after hours standby to respond to emergency situations at water treatment plants.

### **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:

## **NEVADA IRRIGATION DISTRICT**

### **Water Treatment Operator I/II/III**

Two years of responsible experience similar to Water Treatment Operator I with the Nevada Irrigation District.

#### Education:

Equivalent to completion of the twelfth grade supplemented by education as required by the State of California Department of Public Health to obtain and retain a Water Treatment Operators Certificate, Grade 2 (T2).

#### License and Certificate:

Possession of a valid California driver's license.

Possession of a California Department of Public Health Water Treatment Operators Certificate, Grade 2 (T2).

#### Water Treatment Operator III

In addition to the qualifications for the Water Treatment Operator II:

#### Knowledge of:

Methods and techniques associated with proper water treatment plant and water storage operations.

Advanced principles of biology, chemistry, and mathematics.

Tools, materials, and equipment used in the operation and maintenance of water treatment plants and distribution system.

Operational procedures, equipment and maintenance related to water treatment plants.

Laboratory analysis techniques and health standards for potable water.

Emergency response procedures.

Methods for troubleshooting equipment associated with the operation of a water treatment plant.

#### Ability to:

Independently operate water treatment systems.

Perform minor repair maintenance on pumps, valves, and electronic monitoring devices.

Independently collect samples and conduct and interpret laboratory results.

Operate a variety of equipment and changing technology related to water treatment in a safe and effective manner.

Troubleshoot and resolve maintenance issues associated with treatment and distribution equipment.

Interpret, apply, explain, and enforce District policies and procedures governing water treatment facilities.

Work after hours standby to respond to emergency situations at water treatment plants.

Operate a computerized water treatment plant SCADA system.

Train and provide technical supervision to lower certified operators.

## **EXPERIENCE AND EDUCATION GUIDELINES**

## **NEVADA IRRIGATION DISTRICT**

### **Water Treatment Operator I/II/III**

*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:

Two years of responsible experience similar to Water Treatment Operator II with the Nevada Irrigation District.

#### Education:

Equivalent to completion of the twelfth grade supplemented by education as required by the State of California Department of Public Health to obtain and retain a Water Treatment Operators Certificate, Grade 3 (T3).

#### License and Certificate:

Possession of a valid California driver's license.

Possession of a California Department of Public Health Water Treatment Operators Certificate, Grade 3 (T3).

## **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 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 operations, and observe safety rules; intermittently analyze problem equipment; identify and locate equipment; interpret work orders; remember equipment location; explain jobs to others; handle conflict.