

# JOB DESCRIPTION

Coachella Valley Water District

Date: July 2016

**TITLE:** Water Quality Operator II

**SECTION:** Treatment

**DEPARTMENT:** Operations

**SRN:** A-28

## **REPORTING RELATIONSHIP:**

Supervised by: Crew Chief, Water Quality

Supervises the following positions: Not applicable

**DEFINITION:** Under general direction, the core function of this position is to perform the operational activities related to the District's T2 classified water treatment facilities and the District's water disinfection facilities. In addition, this position will be required to work on the District's water distribution system. This position is also expected to provide project leadership when required on job assignments and to do related work as required with minimum direct supervision. This position is differentiated from the Water Quality Operator I position by the expectation that the Water Quality Operator II will be capable of working with greater independence and can be relied upon for journey level decision making.

## **ESSENTIAL FUNCTIONS:**

1. Effectively operate, maintain, and repair District chlorination facilities located at wells, booster stations and other locations in the distribution system. Analyze the causes of malfunctions and repair or replace equipment as needed to put the chlorine system back on line with the proper residuals in the distribution system.
2. Operate and Maintain the District's T2 Classified Ion Exchange Treatment Plants (IXTP) for the removal of Arsenic. Perform routine checks on operational processes. Make adjustments to operational parameters to ensure compliance with IXTP permit requirements.
3. Check, titrate, and adjust chemical solutions. Make precise adjustments to chemical delivery systems of these solutions.
4. Stand-by emergency response duties for after hours for treatment plant and chlorine operational emergencies.
5. Performs emergency response procedures for both the 150 pound cylinders and the one ton containers. Participates on chlorine emergency leak response team as "first man" for both Domestic and Sanitation departments. Uses Repair Kit A, Repair Kit B, and Chlor-A-Safe unit that contains cylinder leaks.

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### ESSENTIAL FUNCTIONS (CONT.):

1. Operate pumps and related flow and pressure control and storage facilities manually or by using a supervisory control and data acquisition (SCADA) system.
2. Determine and control proper chemical dosage rates for wellhead disinfection and distribution residual maintenance.
3. Investigate water quality problems in the distribution system.
4. Prepare and maintain accurate reports and records related to chlorination procedures when needed. Read and interpret plat books and blue prints.
5. Performs construction and maintenance work or other related duties as required. Operate and maintain a variety of hand and air tools.
6. Strictly adheres to District safety practices and procedures and proper use of personal protective equipment including the self-contained breathing apparatus.
7. Oversee or perform flushing, cleaning, and pigging of existing water mains.
8. Disinfect and test domestic water wells.

### MINIMUM QUALIFICATIONS:

License or Certificates: Valid California Operators license issued by the State Department of Motor Vehicles. Department of Motor Vehicles driving record may influence employment or classification.

And

Possession of a Grade D1 Water Distribution Operators Certificate issued by the State Water Resources Control Board.

And

Possession of a Grade T2 Water Treatment Operators Certificate issued by the State Water Resources Control Board.

And

Possession of Hazwoper certificate.

And

Possession of Hazmat (X) endorsement.

Experience: Any combination of training and experience which would likely provide the required knowledge and abilities is qualifying. A typical way would be to have two years of experience equivalent to Water Quality Operator I or Water Treatment Operator I.

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### MINIMUM QUALIFICATIONS (CONT.):

#### Knowledge:

1. Source Water – watershed protection, wells, groundwater, surface water, reservoirs, raw water storage, and clear well storage.
2. Water Treatment Processes – coagulation, flocculation, sedimentation, filtration, disinfection, demineralization, corrosion control, iron and manganese removal, fluoridation, water softening, and Ion Exchange Treatment processes.
3. Operation and Maintenance – chemical feeders, pumps and motors, blowers and compressors, water meters, pressure gauges, electrical generators, safety, and SCADA.
4. Laboratory Procedures – sampling, general lab practices, disinfectant, alkalinity, pH, Turbidity, specific conductance, hardness, fluoride, color, taste and odor, dissolved oxygen, algae count, and bacteriological analyses.
5. Disinfection – water main and well disinfection, disinfection by-products, chlorination, chlorine curve chemistry, storage reservoir disinfection, and types of disinfectants.
6. Distribution System Design and Hydraulics – system layout, storage facilities, cross-connection and backflow devices, service connections, system mapping, assess system demand, flow rates and velocity, head loss, cavitation, water hammer, water pressure and volume, and static and dynamic pressure.
7. Drinking Water Regulations – disinfection by-product rule, lead and copper rule, MCLs, monitoring and sampling requirements, safe drinking water act, total coliform rule, and operator certification regulations.
8. Equipment Operation, Maintenance and Inspection – valves, water meters, hydrants, chemical feeders, corrosion, in-line sensors, power generators, SCADA, pump types, uses and sizes, troubleshooting and repair of pumps and motors, water horsepower, inspection of water mains, piping, storage tanks, equipment installation and repair, and wells.
9. Water Mains and Piping – cleaning and maintenance, excavation, installation, repair, joints and fittings, leak detection, leak repair, pipe selection, and service line installation.

#### Abilities:

1. Communicate effectively both verbally and in writing.
2. Safely and effectively use hand tools.
3. Perform heavy manual labor as needed.
4. Understand and carry out verbal and written instructions.
5. Work cooperatively with others.
6. Make sound decisions when working independently.
7. Work safely with chlorine gas and chemicals associated with water treatment using a self-contained breathing apparatus.

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### MINIMUM QUALIFICATIONS (CONT.):

8. Follow District safety policies and procedures.

### PHYSICAL REQUIREMENTS:

1. Will work weekends, evenings, holidays, overtime and standby when required.
2. Will work in extreme weather conditions including heat and rain. Also will work in areas containing chemicals, dust, fumes, and vapors.
3. Performs pick and shovel work when required.
4. Drives District vehicles to job sites and uses a two-way radio to communicate. Driving: Heavy.
5. May be assigned to various district locations.
6. Brings equipment and materials to job sites including over rough terrain.

See Human Resources for physical assessment form.

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