

SENIOR WATER TREATMENT PLANT OPERATOR

DEFINITION

Under general supervision, leads and participates in the operation and maintenance of surface water treatment facilities and equipment on an assigned shift.

SUPERVISION RECEIVED/EXERCISED

Receives supervision from a manager or designee. This classification provides lead direction to lower-level staff. Exercises no supervision.

DISTINGUISHING CHARACTERISTICS

Senior Water Treatment Plant Operator is the advanced lead level class responsible for performing technically complex work in the operation of surface water treatment facilities. Incumbents exercise considerable independent discretion and judgment in matters related to work procedures and methods. Individuals at this level are expected to become fully knowledgeable of the assigned area, learn the full range of maintenance and repair functions. Positions at this level require demonstrated ability to perform the most advanced functions related to the maintenance and repair of equipment at water treatment/production facilities, such as performing routine and non-routine maintenance on chemical feed equipment, pumps, motors and valves, and troubleshooting equipment as necessary. This class is to perform as a Shift Operator. Work hours in this classification vary and include being subject to 24 hour emergency call back working holidays and weekends. This class provides lead direction over Water Treatment Plant staff. The incumbent may be assigned to work any shift, weekends and holidays.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

May include, but are not limited to, the following:

Provides lead direction and participates in monitoring plant performance by conducting analyses on samples from various stages in the treatment process; reads gauges, makes flow adjustments, and controls reservoir levels using SCADA computers.

Determines chemical dosage and makes adjustments to plant processes as necessary.

Performs laboratory analyses on water samples.

Operates, maintains, and repairs mechanical equipment at the water treatment facilities, such as, the chemical feed systems, pumps, motors, and mixers.

Assists in bulk chemical deliveries.

Operates disinfection equipment and obtains samples as required.

Provides appropriate response to emergencies and spills, including hazardous materials.

Maintains operational logs and records.

Makes visual inspections and monitors facilities and roads at the facility.

Assists in training and instructing subordinate employees in the performance of their duties and ensures compliance with safety procedures.

Receives and participates in training on laboratory procedures, plant operations, safety procedures, and emergency response.

Operates a variety of light vehicles and equipment.

Works as a shift operator.

Assists in the preparation of plant and laboratory reports.

Gives facility tours to the public.

Responds to inquiries regarding water quality.

Orders chemicals as needed to maintain adequate supply.

Maintains a high level of safety awareness.

Wears and uses applicable PPE consistent with state mandates as required.
Performs other related duties as assigned.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Knowledge of:

Water treatment plant operations and the materials, methods (basic chemistry, math and laboratory formulas), tools, and equipment used in water treatment.

Operation of pumps, motors, and appurtenances of the plant.
Applicable state and federal regulations.

Computer skills necessary to complete assigned work.

Safety principles, practices, rules and regulations related to operation of a major water treatment facility.

Principles of customer service.

Skill/Ability to:

Safely utilize tools necessary to operate and maintain plant equipment.

Collect samples which are representative of various plant flows and unit processes.

Lead, assign, review, train, and instruct staff engaged in the operation and maintenance of surface water treatment facilities and equipment.

Perform preventive maintenance procedures.

Perform testing and sampling procedures.

Follow oral and written instructions.

Complete emergency response training and perform in emergency situations.

Operate a computer.

Work well with others in a team environment.

Complete work within an assigned time frame.

Utilize a variety of hand tools in accordance with safety principles.

Perform mechanical repairs.

Perform confined space entry.

Perform manual labor work in outdoor weather conditions.

Perform advanced mathematical and algebraic computations.

Complete required training.

Perform the laboratory tests required in the analysis of water.

Interpret and maintain records of laboratory tests.

MINIMUM QUALIFICATIONS

Education:

Possession of a High School Diploma or equivalent GED completion.

Experience:

Three (3) years of full-time work experience operating a groundwater or surface water treatment plant that shares equivalent State of California classification with the City of Fresno.

OR

Three (3) years of full-time work experience in the testing, cleaning, maintenance, inspection, repair, installation, replacement, construction, distribution and operation of water systems.

Possession at time of appointment and continued maintenance throughout entire term of employment in this class, of a valid Water Treatment Operator Certificate, Grade T3, issued by the California State Water Resources Control Board. Failure to maintain the valid certification shall be cause for termination from this class.

NECESSARY SPECIAL REQUIREMENTS

Possession of a valid Class "C" California Driver's License is required at the time of application and continued maintenance throughout the entire term of employment in this classification.

Due to the nature of the work environment the incumbent is required to participate in a medical monitoring program to ensure respiratory fitness for using required respiratory equipment.

PHYSICAL DEMANDS

The physical demands described here are representative of those that are necessary to safely, effectively, and efficiently perform the essential functions of this job with or without reasonable accommodation.

This classification's physical demands involve medium work exerting up to 50 pounds of force occasionally, and/or up to 30 pounds of force frequently, and/or up to 10 pounds of force constantly to move objects. Additionally, the following physical demands may be required: balancing, climbing, crouching, feeling, manual dexterity, grasping, handling, hearing, kneeling, lifting, mental acuity, pulling, pushing, reaching, repetitive motion, speaking, standing, stooping, talking, visual acuity, walking.

APPROVED: _____
Signature on File
Director of Personnel Services

DATE: 10/20/2025

NEW: 8/1/17
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