

WASTEWATER TREATMENT PLANT SPECIALIST

DEFINITION

Under supervision, operates and maintains Wastewater Treatment Plant equipment and facilities.

SUPERVISION RECEIVED/EXERCISED

Receives supervision from an Wastewater Operations Supervisor. Receives lead direction from a Senior Wastewater Treatment Plant Operator. Exercises no supervision.

DISTINGUISHING CHARACTERISTICS

Wastewater Treatment Plant Specialist is the journey level class in the Wastewater Treatment Plant Operator series. Incumbents are responsible for the more complex duties in the operation of a modern Class V secondary wastewater treatment plant. This class differs from Wastewater Treatment Plant Technician in that the latter is the entry level class in the series, and from Senior Wastewater Treatment Plant Operator in that incumbents of the latter provide lead direction to lower-level 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:

Controls the treatment of wastewater and sludge through the operation of pumps, motors, and valves utilizing manual, automatic, and programmable systems.

Monitors and controls the performance of wastewater unit processes by a variety of methods including visual observation, physical measurement, sampling, testing, data collection/analysis, and mathematical calculations using related instrumentation, a local area network and distributed control systems.

Collects representative samples from various plant flows and unit processes for laboratory analysis.

Performs minor and regular routine preventive maintenance, including lubrication of plant equipment, clearing out the grinder manually, clearing out the rock trap. Replacing sheer pins on the final clarifiers and taking the lids off of check valves to observe obstructions in order to maintain operating efficiency.

Works alongside hazardous materials such as chemicals and explosive gases.

Assists with data entry duties in the off shifts which include entering diagrams that are not currently in the database.

Maintains proper appearance and cleanliness of equipment and facilities.

Monitors and operates high pressure hydraulic, pneumatic and power boiler systems.

Operates other related systems, such as a secondary effluent disposal and water reclamation systems.

Trains subordinate operators in the various operational procedures and safety practices involved in the day-to-day operation of a wastewater treatment plant.

Performs related duties as required.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Knowledge of:

The operation and maintenance of electric motors, pumps, and other mechanical/electrical equipment related to wastewater treatment.

Wastewater plant physical characteristics, including location and configuration of piping and valves to provide more efficient operation of the facilities.

Confined space hazards, procedures, and safety requirements.

The characteristics and safety requirements of the use of various chemicals used in the wastewater treatment industry, e.g., chlorine, ferric/ferrous chloride, polymer, etc.

The occupational hazards and safety precautions related to the operation of wastewater treatment plants.

The theory and operation of the various types of flow measuring equipment.

Wastewater process control and associated mathematical calculations.

Skill/Ability to:

The use of tools necessary to operate and maintain pumps and other related plant equipment.

The collection of samples which are representative of various plant flows and unit

processes.

Gather data and maintain accurate records pertinent to a wastewater treatment plant.

Utilize a local area computer network and distributed control system in the routine operating and monitoring of the treatment facility and the collection and the maintenance of plant operational data.

Interpret and apply laboratory analyses to plant process control and overall plant operation.

Perform routine wastewater and sludge analyses.

Correctly use self-contained breathing apparatus and air purifying full-face respirators.

Correctly read and interpret wastewater instrumentation.

Follow oral and written instructions and make brief oral and written reports on plant operations.

MINIMUM QUALIFICATIONS

Education:

Possession of a High School Diploma or equivalent GED completion.

Special Requirement(s):

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

Possession of a Wastewater Treatment Plant Operator Grade II Certificate issued by the State Water Resources Control Board is required at the time of application and continued maintenance throughout the entire term of employment in this classification.

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 heavy work exerting up to 100 pounds of force occasionally, and/or up to 50 pounds of force frequently, and/or up to 20 pounds of force constantly to move objects. Additionally, the following physical demands may be required: balancing, climbing, crawling, 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 DATE: 10/20/2025
Director of Personnel Services

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