

TITLE: WATER TREATMENT OPERATOR I-IV

DEFINITION: Under general or direct supervision, operates, maintains, constructs, calibrates, inspects, and repairs components of water treatment, water supply and water distribution facilities such as wells, Metropolitan Water District (MWD) connections, pumping stations, reservoirs, treatment plants and components.

DISTINGUISHING CHARACTERISTICS:

Grade Level I - Under direct supervision, performs the entry-level duties of the classification as listed under the example of duties below; and must possess a Grade I or higher Water Treatment Operator certificate.

Grade Level II - Under general supervision, performs the journey-level duties of the classification and must possess at least a Grade II or higher Water Treatment Operator certificate and a Grade II Water Distribution Operator Certificate.

Grade Level III - Under general supervision, performs the more complex duties of the classification and may act in a lead capacity; and must possess at least a Grade III or higher Water Treatment Operator certificate and Grade III Water Distribution Operator Certificate.

Grade Level IV - Under general supervision, performs the most complex duties of the classification and may act in a supervisory capacity in operation and maintenance of a water treatment, including but not limited to water supply and water distribution facilities, including treatment plants using advanced treatment processes (e.g. membranes); and, must possess a Grade IV or higher Water Treatment Operator certificate and a Grade III Water Distribution Operator Certificate.

EXAMPLES OF DUTIES:

- Operates, maintains, constructs, inspects, calibrates, and repairs components of water treatment plant, wells, water distribution system (pump stations, reservoirs, flow control vaults, etc.) reclaim system (pump stations, reservoirs, lakes, etc.) and sewer;
- Operates, maintains, evaluates, and controls water treatment plant, wells, flow regulation vaults, pump stations, reclaim water systems and sewer pump stations via Supervisory Control and Data Acquisition (SCADA) systems in a 24-7 control room;
- Works various shifts including nights, weekends, overtime, holidays, and irregular hours to ensure 24-7 shift coverage;

- Monitors and controls water treatment and distribution processes, making decisions to ensure reliable water supply and high water quality throughout the water system;
- Evaluates system functions through recording and indicating instruments;
- Controls and regulates flow and quality of water through the Treatment Plant, reservoirs, wells, pump stations and other water facilities;
- Makes calculations dealing with quantity, rate, and volume of water flow;
- Interprets flow and water quality data trends and makes adjustments as needed;
- Calculates chemical dosages and regulates the amount of chemicals used within established parameters to ensure high water quality;
- Performs physical and chemical laboratory control tests such as color, turbidity, pH, chlorine residual and fluoride control;
- Reads, interprets, and correlates pumping plant and well gauges, meters, and online water quality analyzers;
- Utilizes bulk chemicals such as chlorine gas, caustic soda, polymer, ammonia, ferric chloride, fluoride, and other chemicals used for treatment purposes;
- Attends and maintains safety training certification such as HAZWOPER 40-hour training and confined space, etc.;
- Installs, modifies, repairs, maintains, and replaces water system facilities components, such as pumping and plumbing systems that regulate water flow;
- Performs other operational tasks, including but not limited to washing filters;
- Maintains and repairs all compressors, vacuum pumps, and chlorine feed equipment such as chlorine leak detectors, chlorine analyzers, chlorine evaporators, chlorinators, scales, and appurtenances;
- Inspects and maintains the proper functions of process equipment and instrumentation such as online water quality analyzers;
- Operates various mechanized equipment, pneumatic tools, and other equipment for installing and pulling pumps and other process equipment components of a water system and sewer pump stations;
- Responds to customer inquiries and requests, including the dispatching of emergency service assistance;
- Performs general maintenance at system facilities such as painting of pumps and appurtenances, floor, and equipment cleaning, etc.;
- Chlorinates reservoirs, cisterns and main lines utilizing various chlorine feed system, including but not limited to portable chlorination unit;

MINIMUM QUALIFICATIONS:

All candidates must possess a valid Water Treatment Operator Grade I (T1) or higher certification issued by the California State Water Resources Control Board (SWRCB) or the California Department of Public Health.

AND

Must meet one of the following options:

- A. One (1) year or more of paid, full-time experience in the operation and evaluation of water pumping and control systems, including the operation and maintenance of pumps, valves, and related mechanical equipment such as chemical feed machines, chlorinators, and/or other technical precision equipment.

OR

- B. Two (2) years of paid, full-time equivalent experience in the operation and maintenance of pumps and related equipment such as chemical feed machines, chlorinators and/or other technical precision equipment.

Completion of a three (3) unit (equivalent = 36 contact hours) training course recognized by the State Water Resources Control Board (SWRCB) in drinking water treatment may be substituted for six (6) months of experience.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of principles, practices, and regulations related to treatment process of drinking water facilities;
- Knowledge of operation and maintenance of pumps, motors, valves, metering control systems and equipment;
- Knowledge of basic lab and instrumentation equipment used in routine plant maintenance;
- Knowledge of occupational hazards and safety regulations, policies and procedures to enforce safe work environment;
- Skill in maintaining, operating, repairing and adjustment of drinking water treatment and distribution, recycled water distribution systems, sewer pump stations and components;
- Skill in use of safety equipment such as respirators, Supplied Air and SCBA, and chlorine emergency leak kits A & B;
- Ability to perform basic mathematical computations;
- Ability to follow safety and regulations in operating heavy equipment;
- Ability to read construction drawings, blueprints, plans, and maps of water distribution, water treatment and/or sewer collection systems;
- Ability to use a computer and computer related software;
- Ability to respond to emergency call-outs on 24-hour basis within 30 minutes of being contacted while on standby;

- Ability to read and understand the importance of following safety data sheets (SDS) in the event of exposure to hazardous chemicals;
- Ability to analyze and interpret complex operational information and data, make adjustments, evaluate alternatives, and recommend or implement effective course of action;
- Ability to lift, push and pull 50 pounds;
- Ability to wear a self-contained breathing apparatus;
- Ability to maintain safety and other relevant certifications;
- Ability to establish and maintain effective working relationships with supervisors, co-workers, contractors, representative of utility companies, and other City departments to accomplish set goals and objectives for the Department;
- Ability to work with co-workers and members of the public through effective interpersonal, written, and oral communication skills;
- Ability to organize and prioritize a variety of projects and multiple tasks in effective and timely manner;

Valid motor vehicle operator's license.

Willingness to work various shifts, including nights, overtime, weekends, holidays, and irregular hours as needed.

HISTORY:

Established: 07/25/1997
Revised: 08/20/1997- Consolidated and title change Water Systems Operator I/II/III, Water Treatment Plant Operator I/II/III, and Utility Plumber Mechanic I/II.
11/14/2001- Amended to add Grade IV

Civil Service Commission Approval/Adoption Date: 05/25/2022