

ORGANIZATION: Beverly Beach Water District

JOB DESCRIPTION: Water Filtration Plant and Distribution System Operator

DATE: June 2021

PURPOSE OF POSITION:

Under the supervision of the Beverly Beach Water District Board, the position of Water Filtration Plant and Distribution System Operator requires that they apply their knowledge, experience and skills acquired in the field of drinking water treatment, to operate and monitor a mixed media filtration plant and supervisory control system (SCADA) as well as the related equipment used in the water filtration process. The operator should be able to detect equipment malfunctions and to ensure plant systems are operating normally to maintain and regulate the continual treatment and distribution of drinking water without interruption of quality or service. Distribution system duties includes ensuring delivery of safe and clean drinking water through maintenance, construction and repair of water distribution pipes, hydrants, booster stations, metering devices, and other infrastructure within the public right-of-way and on public owned facilities and easements.

This individual will perform routine and non-routine maintenance on turbidimeters, chlorine analyzers, pumps, piping systems, valves, and related equipment; perform lab and clerical work; and perform activities necessary to maintain structures, equipment and grounds. The Water Filtration Plant and Distribution System Operator position primarily operates, maintains, and repairs water supply, distribution, and treatment facilities, produces and distributes an uninterrupted supply of safe and high-quality drinking water, and ensures water is free from disease causing organisms and toxic substances.

ESSENTIAL JOB FUNCTIONS AND EXAMPLES OF DUTIES PERFORMED:

- Monitor and evaluate treatment process from raw water to the final product-finished water. Adjust as needed.
- Operate and monitor a computerized control system (SCADA) to control the membrane filtration facility process such as pumps, motors and chemical feeders.
- Check pump stations as needed/required.
- Monitor all plant operations and record data from control room and process meters, gauges, and recording instruments. Report malfunctions and unusual trends or conditions to the water plant operator.
- Monitor all plant operations and record data from control room and process meters, gauges, and recording instruments. Report malfunctions and unusual trends or conditions to the WF supervisor.
- Collect raw water, in-process finished water, and effluent samples for in-house and outside analysis. Prepare samples for shipping to outside laboratory as required, following all specifications for strict chain-of-custody. Conduct laboratory tests, such as pH, Chlorine, Iron, Manganese and TOC in accordance with established procedures. Maintain appropriate records.
- Perform ground maintenance, using a riding mower, weed eater, etc.
- Adjust and alter chemical treatment of plant process as required with operator two or higher approval.
- Safely perform procedures related to chemical handling, confined spaces, electrical hazards, fire safety, lockout/tagout, personnel protective equipment, reservoir/watershed protection and security. Oil, grease, and replace parts. Clean equipment.
- Occasionally performs heavy manual labor, including shoveling, hauling, and lifting.
- Perform maintenance and care of vehicles.
- Check fire extinguishers and safety showers monthly.
- Troubleshoot, maintain mechanical equipment throughout plant.
- Interpret meter/gauge readings and test results.

- Monitor and inspect all plant operations and equipment to detect equipment malfunctions and to ensure plantsystems are operating normally.
- Respond to public inquiries in a courteous manner, provide information within scope of knowledge, and refer to supervisor as appropriate. On occasion, conduct public tours of the plant. Maintain excellent relations with suppliers and vendors, engineers, regulatory agencies, and other people in the industry through oral and written communication.
- Calibrate equipment needed for testing and maintaining calibration logs.
- Enter data and perform bookkeeping.
- Create forms for recordkeeping.
- Create logs for equipment maintenance, service and repair, vehicle condition, laboratory results, daily plant condition, and plant historical data.
- Respond to alarms and make necessary adjustments or changes within prescribed standards and implements to the process to ensure continued production and an uninterrupted supply of drinking water. When problems or alarms outside normal operating conditions occur that: a) directly effects water quality, b) requires changes in process control or operation or c) require further troubleshooting.
- Generate/assist in completing all Federal, State and Local reports as required by law. Reports and recordkeeping will be performed in accordance with prescribed standards.
- Subject to call out after normal working hours and to respond within one hour to emergency situations.
- Order Chemical and laboratory supplies.
- Drive trucks of various sizes and weights in the loading, unloading, and hauling of various equipment, gravel and sand.
- Perform manual labor involved in construction.
- Place barricades, signs, and traffic cones, and direct traffic around worksite to protect worker and the public.
- Cut and patch asphalt.
- Develop and maintain a positive working relationship with colleagues, supervisors, clients and others.
- Other duties as assigned.
- Cut, fit, repair, tap, and clean water mains, pipes, valves, and fittings.
- Determine the location of water mains, storm systems, and sanitary sewer prior to construction work.
- Operate backhoe and compaction equipment.
- Repair and maintenance of water system, including pavement cutting, trench digging and line cleaning.
- Clean and disinfect storage tanks and reservoirs.
- Excavate, backfill, and compact trenches.
- Install, maintain, and repair hydrants. Install hydrant meters.
- Maintain and repair valves and valve covers.
- Test water for chlorine, take samples to be submitted for bacteria tests.
- Install, maintain and repair water service meters and components such as the meter box, wheel valve, by-pass, and counter.
- Lay, connect, test and disinfect water mains. Tap into water mains. Flush and clean water mains.
- Lay, connect, test, and flush service lines. Repair leaks in service lines. Notify public when affected with type of work and reason for work being conducted.
- Call for and maintain utility locates if excavation is going to be performed.
- Oversees the construction/maintenance work performed at the job site.
- Deal with public complaints and by questions by phone and in person.
- Other duties as assigned.

JOB QUALIFICATION REQUIREMENTS:

MINIMUM/MANDATORY EDUCATION AND EXPERIENCE REQUIREMENTS:

Any equivalent combination of education and experience which provides the applicant with the knowledge, skills, and abilities required to perform the duties as described. A typical way to obtain the knowledge, skills and abilities would be:

- **High School Diploma or equivalent, and**
- **Oregon Water Treatment Level II Certification.**
- **Oregon Filter Endorsement.**
- **Oregon Water Distribution I Certification**

KNOWLEDGE: Knowledge of general principles in water treatment. Knowledge of field installation of underground utilities; construction; and maintenance and repair of water treatment and distribution equipment. Knowledge of occupational hazard and effective/proper safety standards, practices and procedures related to equipment operation, heavy labor, and the use of hand and power tools and equipment. Familiarity with the operations, materials, methods, techniques, and the Federal and State guidelines used in water treatment and distribution. Knowledge of modern water treatment methods, theories and practices. Knowledge of safe drinking water regulations. Proficiency in identifying and working with and around utility locates (call in, identify markings). Being comfortable with routine, repetitive work. Knowledge of hydraulic principles, basic microbiology, math and basic chemistry. Demonstrated knowledge of personal protective equipment (PPE) application, use, and care.

SKILLS: Skill in the use of personal computers, various related software programs, standard office equipment, and hand and power tools. Proficiency in routine vehicle maintenance, service, and refueling. Understanding and proficiency of radio communication protocol. Strong time management, analytical, organization, and prioritization skills. Customer Service orientation and skills. Exceptional interpersonal skills, strong oral and written communications skills with a variety of audiences; ability to communicate complex material in a simple, understandable manner; competence in Business English, spelling, and punctuation. Strong reasoning, analysis, and problem-solving skills combined with excellent judgment and professionalism.

ABILITIES: Ability to establish and maintain an effective working relationship with City management, employees, Council members, other entities, and the general public. Ability to write work reports and maintain records and logs; read and interpret technical manuals, work orders, blueprints, diagrams, and sketches; Ability to communicate effectively, both orally and in writing, with individuals and groups. Ability to work independently. Ability to make rapid and sound decisions in the event of extraordinary situations such as equipment malfunctions, rapid deterioration of raw water quality, or power outages, to ensure the quality of finished water and protect public health. Occasionally may be required to exercise this judgment while unsupervised. Physical ability to perform the essential job functions. Work weekends and on call during emergencies. Attend job related classes and seminars. Is subject to call out after normal working hours and to respond within one hour to emergency situations.

PHYSICAL DEMANDS OF POSITION:

While performing the duties of this position, the employee is frequently required to walk, sit, stand, bend, kneel, stoop, communicate, reach, and manipulate objects. The position requires mobility including the ability to frequently lift or move materials up to thirty (30) pounds and occasionally lift

or move materials up to one hundred (100) pounds. The position requires the ability to operate a motorized vehicle. Manual dexterity and coordination are required about 90% of the work period while operating equipment such as computers, keyboards, telephones, standard office equipment, maintenance equipment, and motorized vehicles. Physical exertion may be required to move heavy objects, crawl through tight spaces, and kneel in confined areas. Physical effort may be required to perform heavy manual labor in confined/cramped spaces or uncomfortable conditions, climb ladders, bend, reach, and stand for long periods of time. Sensory requirements include; speaking, hearing, vision, color discrimination, touch, smell, and balance.

WORKING CONDITIONS/WORK ENVIRONMENT:

Work location is approximately a 50:50 mix between outdoors and indoors where some of the work may involve exposure to loud noise, offensive smell, dust, heavy machinery, chemicals, and fumes. Employees in this position are exposed to the risk of physical harm from hazards, including excessive noise, chemicals, fumes, heavy equipment, and hand and power tools. May be required to handle hazardous chemicals, such as chlorine and caustic. At times work may be performed outside in all kinds of weather conditions.

Subject to 24-hour call back for emergencies. Is subject to call out after normal working hours and to respond within one hour to emergency situations.

HOURS:

Work hours vary from 10-20 hours per week as needed.

SAFETY CONSIDERATIONS:

Employee will wear proper protective equipment in compliance with OSHA standards to include: safety glasses, hearing protection, gloves, hard hat, reflective vests and respirators when and where recommended/required.

SUPERVISORY RESPONSIBILITIES:

None

SUPERVISION RECEIVED:

Work is performed under the general direction of the Beverly Beach Water District Board President.