

# City of St. Helens

**Job Title:** Water System/Filtration Operator  
**Department:** Public Works  
**FSLA Status:** Non-Exempt  
**Union:** Yes  
**Date Created:** July 15, 2007

## **GENERAL PURPOSE**

Applies knowledge, experience and skills in the field of water distribution and treatment to perform both regular and non-routine tasks in the operation and maintenance of water filtration, water collection and water distribution facilities. Performs activities to operate a water supply system, to monitor processes and computers, to conduct lab and clerical work, and to maintain equipment, facilities, structures, and grounds.

## **SUPERVISION RECEIVED**

Works under the general supervision of the Public Works Supervisor and the direct supervision of the Water Filtration Facility Supervisor in matters related to the operation and maintenance of the Water Filtration Facility.

## **SUPERVISION EXERCISED**

May exercise limited supervision over a few employees as to instruction or direction of certain duties related to operation and maintenance of the Water Supply System.

## **ESSENTIAL DUTIES AND RESPONSIBILITIES**

- In the absence of the Water Treatment Operator, perform work of a high level of skill and judgment, requiring quick and accurate decisions to prevent risk of physical harm to operator, costly damage to equipment, health hazards to the public, interruption of service to consumers, or possible fines by the Oregon Department of Health.
- Respond to alarms and make necessary adjustments or changes within prescribed standards and protocols to the process to insure continued production and an uninterrupted supply of drinking water.
- Contact Water Treatment Operator or other on-call sources when problems or alarms outside normal operating conditions occur that directly affect water quality, require changes in process control or operation, or require further troubleshooting than covered in the written standards and protocols.
- Operate and monitor a computerized control system (SCADA) to control the water filtration facility process, pumps, motors, and chemical feeders.
- Monitor all plant operations and record data from control room and process meters, gauges and recording instruments. Report malfunctions and unusual trends to the Water Treatment Operator.
- Adjust apparatus controls, start and stop pumps, adjust valves, and operate electric switches and valve controls as necessary to maintain operations within prescribed standards.
- Assist in completing all Federal, State and Local reports in accordance with prescribed standards as assigned by the Water Treatment Operator.
- Calibrate and maintain chemical monitoring equipment and instruments.

- Monitor and inspect all plant operations and equipment to detect equipment malfunctions and to insure plant systems are operating normally.
- Perform security checks in-plant and on-grounds.
- Maintain plant logs and reports.
- 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 in-house laboratory tests such as pH, chlorine and turbidity in accordance with established procedures, and maintain appropriate records.
- Perform all routine maintenance on equipment such as lubrication, oil changes and belt changes. Perform routine repair work such as disassembly, repair and installation of valves, switches, process instrumentation, motors, and related equipment.
- Perform plant and landscape maintenance duties within scope of ability and with appropriate supervision. This includes: inspection, cleaning, and maintenance of tanks; corrosion control of plant piping and valves; structural concrete repairs; scraping and painting; carpentry; plumbing; minor electrical repairs; mopping and waxing floors; cleaning windows; cleaning restroom facilities; vacuuming; and mowing and trimming lawns.
- Perform all work in accordance with local, state and federal laws, rules and regulations and in compliance with all departmental safety policies and procedures. This includes using appropriate safety devices and equipment.
- Respond to public inquiries in a courteous manner, provide information within scope of knowledge, and refer to Water Treatment Operator or Public Works Supervisor as appropriate. Conduct or participate in public tours of the Water Filtration Facility as requested.
- Perform clerical and administrative duties as necessary.
- Is subject to call out after normal working hours and to respond within one hour to emergency situations; may be required to direct the activities of others in the absence of the Water Treatment Operator.
- Perform various duties in the water collection and distribution system as directed by the Public Works Supervisor such as responding to service order requests as collected by City Hall staff, turn-ons and turn-offs for individual services, water quality complaints, water line location requests, and assistance in leak detection on customer systems.
- Perform field check and monitoring rounds on all radial collector supply wells, high elevation booster pump station, underground supply well, and storage reservoirs.
- Collect and submit samples of water to testing laboratory as necessary.
- Test for chlorine residual and turbidity in water at various locations.
- Reads and helps maintain heavy users book.

### **PERIPHERAL DUTIES**

- May perform portions of the work of higher classified positions occasionally, as assigned.
- May perform duties of similar complexity in any City department as required or assigned.

### **DESIRED MINIMUM QUALIFICATIONS**

Education and Experience:

- A. Graduation from high school education or GED equivalent, and
- B. Three (3) years of experience relating to water treatment, water distribution, or related similar field, and

- C. Training or experience in micro-fiber filtration facilities or processes, or
- D. Any equivalent combination of education and experience.

**Necessary Knowledge, Skills, and Abilities:**

- A. Basic knowledge and ability to read equipment instruction and maintenance manuals, drawings, schematics and blueprints.
- B. Good working knowledge of math and chemistry and the specific applications of these in the plant and laboratory.
- C. Knowledge of modern water treatment methods, theories and practices.
- D. Knowledge of safe drinking water regulations.
- E. 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 in order to insure the quality of finished water and protect public health. May be required to exercise this judgment while unsupervised.
- F. Ability to give and follow oral and written instructions.
- G. Ability to learn to perform a variety of clerical functions, including typing correspondence, making legible and orderly entries in logs and work order reports, and maintaining files.
- H. Being comfortable with routine and repetitive work.
- I. Possess or have the ability to obtain CPR/First Aid Certification.

**SPECIAL REQUIREMENTS**

- Must possess and maintain Oregon certification as a Water Treatment Plant Operator II at a minimum.
- Must possess or have the ability to obtain a valid Oregon State driver's license.
- Oregon certification as Water Distribution Operator II may be required.
- Oregon State CDL may be required.
- Must be able to apply basic knowledge of water treatment to the existing systems, equipment and facilities.
- Must have a strong basic knowledge of mechanical, electrical, pneumatic, and hydraulic theory and application, and be able to use manuals and other resources to apply that knowledge in water treatment operations and other diverse requirements of the job.
- Must be trained in confined space procedures and use and containment of all hazardous chemicals used. Must be trained in the use of all safety equipment, oxygen detection meter, blower, respirator, etc.
- Must be able to use basic spreadsheet and word processing computer programs to enter data and prepare correspondence. Must be able to learn to operate programmable logic controllers (PLC's) to monitor and maintain operations.

**TOOLS AND EQUIPMENT USED**

In addition to computer and all specialized plant equipment, operate forklift and pickup truck, and overhead chain hoist. To the extent of ability, use a variety of hand tools such as saws, drill, wrenches, shovels, etc., and power tools such as cutting torches, drill and bench presses, grinders, drills and a variety of saws, including electric, chain, reciprocating, table and jigsaw. Specialized equipment such as crack welder and electrical test equipment may be used under close to limited supervision depending on the area where equipment is used and potential risk involved.

May be required after appropriate training to operate dump truck, utility truck, jet clean/vacuum truck, manlift, tamper, plate compactor, pumps, compressors, sanders, generators, detection devices, mobile radio, phone, ditch witch.

### **PHYSICAL DEMANDS**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools, or controls and reach with hands and arms. The employee frequently is required to stand and talk or hear. The employee is occasionally required to walk, sit, climb or balance, stop, kneel, crouch or crawl, and smell.

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move up to 100 pounds. Specific vision abilities required by this job include close vision, distance vision, peripheral vision, depth perception and the ability to adjust focus.

Capacity for sustained attention to functioning machinery and equipment. Good sensory perception to monitor plant machinery and operations visually, audibly, by smell, and by touch (for temperature and vibration) on an ongoing basis.

Ability to monitor radio messages while doing other work throughout shift.

Ability to wear all required safety and protective gear and equipment.

### **WORK ENVIRONMENT**

Depending on the task being performed, the environment may be a wet, muddy, dark, cold, confined space, requiring protective gear and special training in basic confined space procedures; various areas of the treatment plant and intake station, subject to hot, noisy, wet, or slippery conditions. The employee frequently works near moving mechanical parts and is frequently exposed to wet and/or humid conditions and vibration. The employee occasionally works in high, precarious places and is occasionally exposed to fumes or airborne particles, toxic chemicals, and risk of electrical shock. The noise level in the work environment is moderate to loud. Must handle hazardous material such as chlorine caustic soda, on a regular basis. At times work is performed outside in all kinds of weather conditions. Can be unusually stressful due to the need to make quick decisions to avoid equipment damage or dangerous results.

## EMPLOYEE ACKNOWLEDGEMENT

*The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.*

*The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.*

### ACKNOWLEDGEMENT

I acknowledge that I have received a copy of the **Water System/Filtration Operator** job description. I understand that it is my responsibility to adhere to the job duties and responsibilities outlined within this job description.

Employee Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

Manager Signature: \_\_\_\_\_

Date: \_\_\_\_\_