

JOB DESCRIPTION
Operator II/Water Filtration
Pay Range 10
Department of Engineering Services

Job Title: Operator II/Water Filtration

Reports To: Superintendent of Plant

Supervises Directly: Assistant Plant Operator and Operator I

Supervises Through Subordinates: None

Purpose for the Position:

To control treatment plant machines and equipment to purify and clarify water for human consumption and for industrial use.

Essential Responsibilities:

Operates and controls electric motors, pumps, and valves to regulate flow of raw into the treating plant.

Dumps specified amounts of chemicals, such as chlorine, fluoride, activated potassium permanganate and caustic soda into water or adjusts automatic device admit specified amounts of chemicals into tanks to disinfect, deodorize, and clarify.

Starts agitators to mix chemicals and allows impurities to settle to bottom of tank.

Pumps purified water into water mains.

Monitors panel board, reads meters, gauges, indicators, and adjusts controls to flow rates, loss of head pressure, and water elevation and distribution of water.

Cleans tanks and filter beds, using backwashing (reverse flow of water).

Repairs and lubricates machines and equipment, using handtools and power.

Tests water samples to determine acidity, color and impurities using coloring turbidimeter and conductivity meter.

Dumps chemicals such as alum into tanks to coagulate impurities and reduce acid.

Records data such as residual content of chemicals, water turbidity and water.

May operate portable water purification plant to supply drinking water.

Cleans and paints portions of the plant equipment or facilities and performs other as assigned.

Gives directions to subordinate plant operators in performing routine operations and maintenance.

Ability to understand and communicate written instructions.

Related and other duties as required.

Responsible to self-initiate activities consistent with the City of Sandusky's and department's goals and objectives.

Must report for work at required time and date and maintain a responsible attendance record.

The ability to follow a supervisor's instructions, tolerate certain levels of stress, and attend work on a punctual, regular basis.

The avoidance of violent behavior that threatens the safety of other employees.

Skills and Abilities:

Learn the functioning of the overall water treatment system as well as the individual mechanical treatment and monitoring processes.

Use judgment and make decisions to keep the system operating.

Remain calm during emergencies

Use arithmetic.

Direct the work of others.

Use eyes, hand, and fingers to operate or adjust equipment.

Physical Demands:

Medium Work: Exerting 20 to 50 pounds of force occasionally (Occasionally: activity or condition exists up to 1/3 of the time), and/or 10 to 25 pounds of force frequently (Frequently: activity or condition exists from 1/3 to 2/3 of the time), and/or greater than negligible up to 10 pounds of force constantly (Constantly: activity or condition exists 2/3 or more of the time) to move objects.

Environmental Conditions:

Protection from weather conditions but not necessarily from temperature changes. A job is considered "inside" if the worker spends approximately 75 percent or more of the time inside. Wet and Humid: Wet: Contact with moisture content sufficiently high to cause marked bodily discomfort. Noise and vibration: Sufficient noise, either constant or intermittent, to cause marked distraction or possible injury to the sense of hearing, and/or sufficient vibration (production of an oscillating movement or strain on the body or its extremities from repeated motion or shock) to cause bodily harm if endured day after day. Hazards: Situations in which the individual is exposed to the definite risk of bodily injury. Exposure to : Odors, toxic conditions, dust, or poor ventilation, mechanical devices in motion and open water reservoirs.

Reasoning, Mathematical and Language Development are indicative of the general level of development required to do this job. Some, but not necessarily all, areas mentioned in this section will be included in this job.

Reasoning Development: *Apply common sense understanding to carry out instructions furnished in written, oral, or diagrammatic form. Deal with problems involving several concrete variables in or from standardized situations.*

Mathematical Development:

Compute discount, interest, profit and loss; commission, markups and selling price; ratio and proportion, and percentages. Calculate surface, volumes, weights and measures.

Algebra: Calculate variables and formulas; monomials and polynomials; ratio and proportion variables; and square roots and radicals.

Geometry: Calculate plane and solid figures; circumference, area, and volume. Understand kinds of angles, and properties of pairs of angles.

Language Development:

Reading: Read and understand instructions, safety rules, etc.

Writing: Write reports with proper format, punctuation, spelling, and grammar, using all parts of speech.

Speaking: Speak with poise, voice control, and confidence, using correct English and well-modulated voice.

Relationships to Data, People and Things:

Data: *Compiling: Gathering, collating, or classifying information about data, people or things. Reporting and/or carrying out a prescribed action in relation to information is frequently involved.*

People: *Taking Instructions-Helping: Helping applies to "non-learning" helpers. No variety of implicit wishes of people is involved in this function.*

Things: *Operating-Controlling: Starting, stopping, controlling and adjusting the progress of machines or equipment. Operating machines involves setting up and adjusting the machine or materials as the work progresses. Controlling involves observing progress of operations and turning devices to regulate reactions of materials.*

Specific Vocational Preparation:

Specific Vocational Preparation includes an occupationally significant combination of: vocational education, apprentice training, in-plant training, on-the-job training, or essential experience in less responsible jobs which lead to the higher job or serving in other jobs.

Over 6 months up to and including 1 year.

To do this job, you must have the following licenses or certifications before being hired:

Class I Water Treatment Operator's License with the ability to obtain a Class II Water Treatment Operator's License within three (3) years.

Certification in EPA Ohio wet chemical I for operator's lab or the ability to obtain one within six (6) months from the date of hire.

Current Ohio Driver's License.

To do this job, you must have the following amount of total education and/or experience:

(If hiring someone into this position, this would be the minimum amount of experience and education that would be required in order for the incumbent to have a reasonable expectation for success.)

High School Diploma

Must have considerable experience and/or knowledge of water plant equipment, operation and plant theory and practice. Must have demonstrated leadership and supervisory skills.

OR, an equivalent level of education and experience.