

CITY OF HELENA



Position Title: Water Plant Operator in Training

Department: Public Works

Division: Water Treatment Plant

Grade: 130-132

FLSA: Non-Exempt

The City of Helena is an equal opportunity employer. The City shall, upon request, provide reasonable accommodations to otherwise qualified individuals with disabilities.

Job Purpose:

Under general supervision of the Water Production Supervisor performs highly skilled technical work in the operation and maintenance of two water treatment plants. Incumbent must maintain sufficient water flows to ensure adequate water supplies and monitors the proper doses of chemicals, turbidity levels, and pH. The employee performs laboratory analysis and calibrations.

Water Plant Operator In-Training--This is an entry level position for employees who do not possess state certification for water treatment & related work experience. Employees are required to pass the State of Montana certification test at which time the employee becomes a certified Water Plant Operator In-Training. Employees are given 1 year upon hiring to become a certified water plant operator in training.

Certified Water Plant Operator In-Training --This is the entry level in the water treatment plant series for employees who have passed the State of Montana certification test, but have not yet meet the requirements for work experience. Employees at this level are expected to obtain work experience to acquire a Class 1B Water Treatment Certificate issued by the State of Montana, at which time the employee becomes eligible for the Water Treatment Plant Operator I.

Essential Duties: *These job functions are the essential duties of the position and are not all-inclusive of all the duties the incumbent may be assigned.*

Water Treatment Plants

Performs work in the operation, maintenance, and control of the City of Helena's two surface water treatment plants, the Tenmile, Missouri River Water Treatment Plants, one groundwater source, (Eureka well), and the Tenmile watershed, all of which is located in the Helena, MT. area.

Conducts daily inspections, monitors operations of the drinking water plants, equipment, and related facilities. Combines various data elements and performs lab tests to verify automated readings. Said data is used to make necessary changes to maximize water treatment goals, provide adequate, safe and aesthetically pleasing water for domestic use and fire protection. Monitors and controls the distribution system through the use of electronic and automated control systems. Observes variations in operating conditions by interpreting meters, gauges, and trends as well as water quality test results and adjusts processes by such. Routinely collect water samples from the plants and throughout the distributions system for analysis on a daily basis. Documents readings and results, combines various data elements to properly gauge the quantity of treated water needed to maintain sufficient storage tank levels for uninterrupted service to customers during high demand and fire flow conditions. Maintains and operates water filters and control valves, backwashes filters and CAC's to remove particles trapped during filtration to prevent filter breakthrough or filter clogging. Calculates and maintains correct water flows, (MGD) rates or water treatment requirements. Adjusts and maintains chemical feeders. Inventory, receive and record chemical supplies. Change chemical storage totes or pump chemical from totes as necessary.

Maintains a thorough knowledge of federal and state laws, standards and procedures related to water plant operations and ensures compliance with all. Operates Supervisory Control and Data Acquisition (SCADA) computer system; monitor screens and respond to alarms; interpret and understand data, resolve errors and perform rudimentary diagnostics on Programmable Logic Controller (PLC) and Remote Terminal Units (RTU's). Maintain proper use of in-line process instrumentation including; turbidimeters, pH meters, chlorine analyzers, and pH probes with the ability to calibrate all of the above. Must be able to interpret data from calibrations, understand deviations, and make corrections. Responsible for the safe and proper operation of plant mechanical systems including; electric motors, air blowers, mixers, and air compressors. Reports any and all deviations from normal operation and correct if possible. Creates and analyzes reports used to maintain compliance with the Safe Drinking Water Act. Performs research on new methods and advances in water treatment through a variety of technical resources. Obtain continuing education credits required to maintain water treatment operator certification. Assists in the maintenance and replacement of facility equipment including cleaning, lubricating, oiling pumps, motors, and feeders. Performs custodial duties for all related facilities on rotational basis to include sweeping, mopping, buffing, waxing floors, cleaning restrooms, and washing fleet vehicles. Responds to and investigates customer questions and complaints regarding perceptions of water quality such as dirty water and/or taste and odor issues. Resolves problems if possible or refers to the appropriate person or division. Will work a rotating and varying shift schedule to include responding to alarm conditions on a two week rotational basis.

Water Distribution System

Perform general and technical maintenance, operation, and repair of all pumping equipment and facilities at the various reservoirs, intakes, headgates, and well pumps that are utilized as auxiliary water supply sources; maintain the grounds and area around each of these facilities. Perform "Town Run" duties including checking and maintaining pump and chlorine booster stations, reservoirs, and other related systems; perform the necessary operation, preventative maintenance, and non-routine maintenance on all systems; take and record daily chlorine residuals at the chlorine station and distribution sampling points. In addition, the incumbent will be required to complete various sampling protocols from established sites on a routine basis.

Watershed

Check headgates and diversion points daily during rain storms, in extremely hot or cold weather, and during electrical power failure; ensure proper operation of equipment and maintain the best water quality (lowest turbidity) into the system. The headgates will be monitored for flow, inspected for security, and any necessary repairs need to be made. Report any activity observed that may pollute the water throughout the watershed including mining, logging, cabin/home construction, increased public activity, beaver dams, runoff during rainstorms that runs directly into the creek or pipeline, and related activities. Perform all other related duties as required for the proper operation of the water treatment plants and related systems. Conduct periodic dam inspections in accordance with the Dam Operating Permit Criteria (Owners' Periodic Inspection Pro. Assist in the removal of snow from canals; repair trestles, flumes, and related items to ensure that canals are operable when water is discharged through it; inspect the ditch during spring usage to insure that it is not overflowing and is maintaining a level that is consistent with the capacity of the canal (Red Mountain Flume). Operate and maintain city vehicles and ATVs on poorly maintained roads and in inclement weather to include snow and ice. Inspect and maintain manholes on the concrete raw water supply lines from headgates to plant.

Administrative and safety

Complete and maintain all records and reports required by City, State and Federal agencies; ensure all standards are met as required by these agencies. Participate in the coordination of plant operations with outside contractors and agencies. Abide by the City of Helena and division work practices established for

specific job assignments and occupations. Report occupational injuries, illnesses and near misses immediately to their supervisor. Follow supervisor instructions for obtaining first aid and/or medical attention. Participate in accident investigations and in safety training as requested by the supervisor. Suggest improvements in safety training or programs to the supervisor or the safety committee. Identify unsafe work conditions and unsafe practices and correct hazards or report them to the supervisor immediately.

Essential Knowledge, Skills and Abilities Related to this Position:

Knowledge of:

- Basic methods, techniques, and tools used in repair and maintenance work.
- Uses, purposes, and operating characteristics of tools, equipment, and moderately heavy motorized equipment.

Skill or ability to:

- Learn to operate a wide variety of equipment and tools used in the operation, servicing, and maintenance of various types of equipment related to the water treatment process.
- Perform manual labor for extended periods of time in all types of weather.
- Operate a motor vehicle safely.
- Learn operational characteristics of specialized water treatment equipment and mechanical equipment systems including pumps, meters, and chlorine equipment and devices.
- Learn materials, methods, and practices used in the operation of water systems and chlorination equipment.
- Learn to read meters and gauges correctly and to act quickly and competently.
- Learn policies and operating routines of the water treatment facilities.
- Learn the fundamentals of laboratory analysis, interpretation, and calculations.
- Learn occupational hazards and standard safety precautions necessary in water treatment plant operations.
- Learn pertinent Federal, State, and local laws, codes, and regulations.
- Make independent technical decisions to maintain proper water treatment processes.
- Diagnose operating problems and take effective courses of action.
- Prepare and maintain accurate and complete records.
- Perform accurate mathematical calculations.
- Communicate clearly and concisely, both orally and in writing.
- Establish, maintain, and foster positive and harmonious working relationships with those contacted in the course of work.

Physical Demands:

Ability to sit, stand, walk, kneel, crouch, stoop, squat, crawl, twist, climb, push, pull, and lift up to 50 lbs. Ability to travel to different locations and worksites. Ability to distinguish color, wear protective apparel to protect against elements. Exposure includes cold, heat, noise, outdoors, vibration, chemicals, explosive materials, mechanical hazards, electrical hazards and confined spaces.

Minimum Qualifications (Education, Experience and Training):

This position requires a minimum of a High School diploma or equivalent and 1 year of experience in the operation of hydraulic pumps, valves, gasoline powered engines, and motors. Other relevant combinations of education and work experience may be evaluated on an individual basis.

License or Certificate:

Must possess a valid driver's license with acceptable driving record at the time of hire or have the ability

to obtain a valid MT driver's license within six months of hire.

The incumbent must have the ability to obtain the Water Plant Operator In-Training (Certified) classification within twelve months of hire.

Supervision Received:

Supervised by the Water Production Supervisor

Supervision Exercised:

None

The specific statements shown in each section of this position description are not intended to be all inclusive. They represent typical elements and criteria considered necessary to perform the job successfully.