**#2060 Water Treatment Plant Operator I**

**Primary Reason Why Classification Exists**

To perform technical and skilled manual work in the operation and maintenance of the City’s water treatment plant.

**Distinguishing Features of the Class**

An employee in this class is responsible for monitoring and treating the city’s drinking water in the treatment facility. Emphasis of the work is on performing routine tests to ensure optimum quality of water and efficient operation of the plant. Work includes conducting hourly rounds of the plant, maintaining records, performing tests on water and other plant systems, adding required chemicals to water, troubleshooting mechanical problems, assisting customers and performing related duties. Work is performed under general supervision and is evaluated for quality of water produced, accuracy in tests performed, documentation of records and efficient plant operations.

**Illustrative Examples of Work**

* Makes regular tours of plant to inspect operations; reads and documents readings and calibrations; adjusts chemical feed rates of equipment; ensures meters and pumps are functioning properly.
* Collects water samples and performs tests; inspects water treatment plant equipment chemical systems for proper operation; reports needs for equipment repairs.
* Performs test on filtered water to determine excess color and records results; conducts tests for turbidity in raw, settled and filtered water, chlorine residuals in filtered water, alkalinity levels in raw and filtered water, and records all results; calibrates fluoride meter and tests fluoride levels in raw and filtered water and records results.
* Performs tests for coagulation, pH levels and alkalinity; determines optimal chemical dosages; performs tests for settable solids, turbidity, specific gravity, water hardness, color, carbon dioxide levels, dissolved oxygen, chloride, coliform bacteria, alum percentage, caustic percentage, fluoride levels, total organic carbon, chlorine and other colorimetric tests.
* Backwashes and rewashes filters using a backwash pump and fills feeder hoppers.
* Checks levels of coagulants, caustic, fluoride, corrosion inhibitor, total organic carbon, coagulant aid, and other chemicals; adds chemicals as required.
* Assists with replacement of chlorine cylinders and regulates the flow of chlorine; calculates chemical dosage, average readings, and plant performance and records in log book.
* Performs routine preventive maintenance and repairs to pumps, motors, and other mechanical equipment; reports equipment failures to supervisor for replacement.
* Performs associated work such as bulk chemical handling, grounds keeping and housekeeping duties.
* Participates in classroom and on-the-job training to ensure knowledge level and eligibility for certification renewal is maintained.
* Provides information to citizens, vendors or others who may need assistance with water treatment plant operations.
* Performs related tasks as required.

**Knowledge, Skills, and Abilities**

* Working knowledge of the operating characteristics and maintenance requirements of a water treatment plant.
* Working knowledge of state and federal water treatment and water quality regulations.
* Knowledge of the occupational hazards of the work and necessary safety precautions.
* Ability to make decisions about water quality and water supply in the absence of a supervisor.
* Ability to detect problems in the operation of mechanical equipment and report those problems to a supervisor or the appropriate employee.
* Ability to conduct routine water quality tests and read meters and charts accurately, and record results.
* Ability to perform environmental science calculations and to keep detailed records.
* Ability to receive and carry out instructions provided by a supervisor.

**Physical Requirements**

This is heavy work requiring the exertion of 100 pounds of force occasionally, up to 50 pounds of force frequently, and up to 20 pounds of force constantly to move objects. Work requires climbing, balancing, stooping, crouching, reaching, walking, pushing, pulling, lifting, grasping, and repetitive motions. Verbal communication is required to express or exchange ideas. Hearing is required to perceive information at normal spoken word levels. Visual acuity is required for visual inspection involving small defects and/or small parts, use of measuring or testing devices, assembly of equipment, operating plant equipment including motor vehicles, determining the accuracy and thoroughness of work performed, and observing general surroundings and activities

**Working Conditions**

Work occurs in both inside and outside environmental conditions including extreme heat and cold. Employee is subject to the noise from motors and pumps in a water treatment plant which may require the employee to shout to be heard above the ambient noise level. Employee is subject to vibration such as oscillating movements of the extremities or whole body. Employee is subject to hazards including exposure to mechanical equipment and atmospheric conditions from exposure to fumes, odors, dusts, and oils. Employee may be required to wear a respirator, but only if trained in the proper use of said respirator and employee complies with all other requirements associated with wearing a respirator. Employee may also work in close quarters, crawl spaces, shafts, small enclosed rooms and other areas which could cause claustrophobia.

**Education and Experience**

Minimum education qualification is graduation from high school or equivalency. 1-year of less experience in a water treatment facility is desired with some basic knowledge of laboratory bench work. Must be certified at the NC surface water operator grade C level or ability to obtain within one year of employment. Some high school or college coursework in environmental science, physics, and chemistry is desired.

**Special Requirements**

* Valid North Carolina driver’s license.
* NC Surface Water Operator Grade C or higher is required within one year of employment in the position.
* Certified in first aid and CPR preferred.

**FLSA Status**: Nonexempt

**Disclaimer**

This classification specification has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities, and qualifications required of employees to perform the job. The City of Morganton reserves the right to assign or otherwise modify the duties assigned to this classification.

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