

Chief Water Plant Operator - 2914

Primary Reason Why Classification Exists

To perform skilled work in the operations and maintenance of a municipal water treatment plant on an assigned shift

Distinguishing Features of the Class

An employee in this class is responsible for operating and maintaining the water treatment plant on an assigned shift. Emphasis of the work includes making hourly rounds of the plant, maintaining records, performing tests, adding necessary chemicals to the water, troubleshooting mechanical problems, preparing state-required reports, and taking water samples and testing for quality. An additional responsibility is to serve as the Back-Up Operator in Responsible Charge (Back-up ORC) in absence of the Water Plant Superintendent (ORC) and provide on-the-job training to less experienced or less certified operators. Work is performed under the regular supervision of the Water Plant Superintendent (ORC) and is evaluated for attainment of specific performance objectives, accuracy and documentation of tests performed, review of log books, and observation of work in progress.

Illustrative Examples of Work

- Makes hourly rounds of plant checking and documenting gauge readings and calibrations; adjusts chemical feed rates of plant equipment and checks functioning of meters and pumps
- Performs tests on filtered water for excess color, turbidity in raw, settled, and filtered water, chlorine residuals in filtered water, alkalinity levels, and records all results
- Calibrates fluoride meter and tests fluoride residual in raw and filtered water recording results
- Checks levels of alum, caustic, fluoride, corrosion inhibitor, carbon, coagulant aid, and other chemicals and adds chemicals as needed; calculates chemical dosage from readings and makes adjustments to ensure optimum plant performance and records results in log book
- Performs tests for coagulation, PH levels, and alkalinity; determines optimal chemical dosages; performs tests for titrations, Baume levels, settleable solids, specific gravity, water hardness, carbon dioxide levels, dissolved oxygen, chloride, coliform, alum percentage, caustic percentage, fluoride level, carbon, chlorine, and colorimetric tests
- Prepares reports on chemical usage, physical tests, chemical analysis, turbidity, chlorine, filter operations, lagoon information, CT computation, and fluoride and enters into computer
- Gathers water samples from distribution, lagoon, lake, new line, to determine water quality
- Advises plant operators and general maintenance workers of assigned duties, changes in routines, problems, and conducts meetings as required; provides training to plant staff
- Maintains plant inventory, operating, and maintenance records
- Enforces compliance with OSHA and other safety standards
- Performs related work as required

Knowledge, Skills, and Abilities

- Thorough knowledge of state and federal water treatment and water quality regulations
- Thorough knowledge of the principles, practices, and equipment used in water treatment plant operation including operating characteristics and maintenance requirements
- Thorough knowledge of hydraulic, chemical, and mechanical principles pertinent to water

treatment plant operations

- Considerable knowledge of occupational hazards of the work and of necessary safety precautions
- Knowledge of the occupational hazards of the work and necessary safety precautions
- Knowledge of the operating characteristics and maintenance requirements of a water treatment plant and treatment regimens
- General knowledge of physics, chemistry, and biology
- Ability to conduct routine water quality tests, accurately read meters and charts, and form conclusions and make operating decisions based on results
- Ability to perform algebraic calculations and maintain detailed records
- Ability to detect problems in the operation of mechanical equipment, perform preventive maintenance on equipment, and report problems to the chief water plant operator
- Ability to receive and implement instructions provided by the chief water plant operator
- Ability to plan and evaluate the work of others
- Ability to read meters and charts accurately and to maintain records of shift operations; ability to perform necessary laboratory tests
- Ability to perform the tasks of the plant operator; ability to prepare and maintain records
- Ability to establish and maintain effective working relationships with associates
- Skill in the operation and care of laboratory testing and analysis equipment and instruments

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. Vocal 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 is performed in both inside and outside in varied environmental conditions, including extreme heat (above 100 deg F) and extreme cold (below 32 deg F). Employee is subject to noise, vibration, and hazards, including a variety of physical conditions such as proximity to moving mechanical parts, fan belts on motors, high voltage electrical current, exposure to chemicals, and atmospheric conditions. Employee is required to wear a respirator when required. Employee may be required to wear 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

Graduation from high school or GED equivalency and 4 - 6 years experience operating and maintaining a water treatment plant; an Associate's degree in environmental science, chemistry, biology, hydrology, water & wastewater engineering or related study is desired.

Special Requirements

- Valid North Carolina driver's license
- Certificates in Surface Water "A" and designation as a Back-up ORC by the NC Department of Environment and Natural Resources
- Certified in first aid and CPR

FLSA Status: Nonexempt (eligible for overtime or equivalent compensatory time at 1½ times the employee's regular weekly rate for all hours worked in excess of 40 hours in the City's official work week and not the employee's work schedule)

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 Physical Requirements and Working Conditions section of this classification may vary from position to position and a more thorough description of these elements can be found in the employee's Position Analysis Questionnaire (PAQ). The employer reserves the right to assign or otherwise modify the duties assigned to this classification.

January 2015