



JOB CLASSIFICATION DESCRIPTION

SENIOR WATER TREATMENT PLANT OPERATOR	
DATE CREATED:	February 2019

Job Summary:

Under the direction of the Manager of Utilities or Director of Engineering and Operations, the incumbent performs highly skilled operational and maintenance work in a complex ultra filtration membrane plant and supervises workers in the operation and maintenance of the Water Treatment Plant

Work involves making operational decisions and performing operational and maintenance duties in order to maintain water quality that meets or exceeds all compliance criteria outlined in the City's Operating Permit and Provincial and/or Canadian Drinking Water Legislation and guidelines. The position is responsible and accountable for the safe and efficient operation of the City's water treatment plant ensuring the production and delivery of safe, potable drinking water.

Primary Duties and Responsibilities:

- Supervises and directs staff involved in the Water Treatment Plant and intake headworks; ensures policies and procedures are adhered to; plans, schedules, assigns and monitors work; appraises employee performance as it relates to plant operation and maintenance, identifies and recommends training, may participate in staff selection and deals with minor performance problems.
- Monitors the water distribution SCADA system through observation of gauges, meters and control panels to establish accurate system demand requirements and makes adjustments in plant production rates accordingly, maintaining control of flow, chemical feed rates, processing of water, residuals and finished water effluent.
- Visually inspects plant and all equipment daily to ensure proper functioning; troubleshoots sophisticated control systems, and takes corrective action when required.
- Compiles data, prepares electronic reports, and completes logs detailing plant operation, ensuring accurate completion of operational, maintenance, lab, and other records necessary to ensure all approval and plant process requirements are met.
- Arranges and coordinates plant shutdowns, start-up, and process changes.
- Sets up and maintains all computerized reporting systems.

- Performs maintenance and preventative maintenance on plant systems and equipment, and ensures plant cleanliness and proper lockout procedures.
- Conducts daily laboratory analysis, maintains lab inventory, and performs numerous complex calculations related to chemical treatment.
- Receives, loads, and unloads chemicals to emergency chemical leaks.
- Participates in utilities standby rotations and performs unscheduled maintenance and repair work as required outside of regular working hours to ensure 24-hour plant coverage.
- Sets up work orders, gives daily direction to maintenance contractors or equipment suppliers when required, and ensures that outside contractors follow plant specific safe work practices.
- Assists in the training of new operators and other water system personnel and ensures by written and verbal communication that administrative and maintenance personnel are kept informed regarding the plant's operational and mechanical status.
- Develops, performs, maintains and oversees in-house safety programs, risk assessments, safe work procedures and safety training records and ensures that safe work practices and occupational health and safety guidelines are adhered to for the staff and visitors.
- Participates in budget assessment, budget control and forecasting; researches and advises on capital purchases.
- Monitors and inspects contractors' work and evaluates their performance; ensures deficiencies are corrected.
- Promotes awareness of environmental issues for the general public and conducts tours of the plant.
- Makes recommendations on technical matters to supervisor and operators to optimize treatment efficiency and water quality standards.
- Maintains and updates database relative to plant and equipment maintenance.
- Performs related duties as required.

Necessary Qualifications

Knowledge:

- Demonstrated knowledge of methods, practices and procedures related to water treatment operation and associated regulatory requirements.
- Thorough knowledge of plant heating, ventilation, electrical, air handling and instrumentation control systems.
- Experience in large mechanical equipment maintenance and repair.
- In-depth knowledge of computers, spreadsheets, database and word processing applications, including experience with SCADA software, control systems software, DCS and data historian software.
- Thorough knowledge of the principles of biology, chemistry, and hydrology that relate to water treatment.
- Applied knowledge of relevant WorkSafeBC legislation
- Demonstrated knowledge of the safe operation and maintenance of all plant vehicles, equipment, and power tools
- Knowledge of British Columbia regulations, operating permits, and City policies.

Skills/Abilities

- Ability to establish and maintain effective working relationships with others, and contribute to a positive team environment.
- Ability to make major process decisions and exercise considerable independent judgment.
- Ability to express ideas clearly and effectively both orally and in writing and execute both oral and written instructions.
- Ability to work with minimal supervision.
- Ability to perform multiple tasks, establish priorities, and be able to respond calmly and efficiently in an emergency situation.
- Ability to communicate with courtesy and tact in explaining and exchanging data or information.
- Strong leadership skills in safety, supervision, planning, organizing and coaching.
- Ability to supervise, plan, organize and problem solve; prepare cost estimates and project time lines; good verbal and written communication skills.
- Strong communication and interpersonal skills to communicate with tact and discretion when settling requests, complaints or clarifying information.

Education:

- Completion of Grade 12
- Diploma from a recognized technical institute in Water Quality Technology

Training/Certification:

- Possession of a valid Chlorine Handler Certificate would be an asset.
- Possession of Level IV EOCP Water Treatment Certificate or eligibility in British Columbia for same, plus two (2) years' supervisory experience.
- Membership in, or eligible for membership in ASTTBC as an Applied Science Technologist (AScT) or Certified Technician (CTech) designation with ASTTBC.
- Possession of a valid B.C. Drivers' Licence, Class 5.

Experience

- Experience in commissioning, operating and troubleshooting a membrane plant.

GENERAL STANDARDS

- Managers and supervisors shall ensure the health and safety of their employees by demonstrating support and participation in all aspects of the Occupational Health and Safety (OHS) Program, communicating hazards and expectations of safety, maintaining safe work areas, and assigning work to trained persons.
- All employees shall take reasonable care to protect their health and safety, and the health and safety of other persons by becoming familiar with the Occupational Health and Safety (OHS) Program, following established safe work procedures, using protective equipment, and asking for training if unfamiliar with work requested to perform.

- Contributes in maintaining a respectful, safe and supportive work environment that embraces diversity and where everyone is treated with courtesy, dignity and fairness.
- Takes responsibility for reducing energy consumption within the scope of the job duties.
- Adheres to City policies and objectives.

The above statement is a general description of the principal functions of this job and is not a detailed description of all job duties.