



JOB DESCRIPTION

TITLE: WATER TREATMENT PLANT OPERATOR

DEPARTMENT: Engineering & Public Works

LEVEL: 11

Position Last Evaluated: Mar 2018
Job Desc. Last Updated: Jan 2019

JOB SUMMARY

Under the direction of the Water Resources Manager, the incumbent performs highly skilled operational and maintenance work in a complex ultra filtration membrane 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. The position is responsible and accountable for the safe and efficient operation of the City's water treatment system ensuring the production and delivery of safe, potable drinking water.

TYPICAL DUTIES AND RESPONSIBILITIES

1. 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.
2. Visually inspects plant and all equipment daily to ensure proper functioning; troubleshoots sophisticated control systems, and takes corrective action when required.
3. 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.
4. Arranges and coordinates plant shutdowns, start-up, and process changes.
5. Assists with set up and maintenance of all computerized reporting systems.
6. Performs maintenance and preventative maintenance on plant systems and equipment, and ensures plant cleanliness and proper lockout procedures.
7. Conducts daily laboratory analysis, maintains lab inventory, and performs numerous complex calculations related to chemical treatment.

TYPICAL DUTIES AND RESPONSIBILITIES (Cont)

8. Receives, loads, and unloads chemicals; changes chlorine tanks and responds to emergency chlorine leaks.
9. Performs unscheduled maintenance work as required outside of regular working hours and for short-term absences to ensure 24-hour plant coverage.
10. 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.
11. Assists in the training of new operators and other water treatment plant staff and ensures by written and verbal communication that administrative and maintenance personnel are kept informed regarding the plant's operational and mechanical status.
12. Assists in development, performance and maintenance of 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.
13. Promotes awareness of environmental issues for the general public and conducts tours of the plant.
14. Makes recommendations on technical matters to supervisor to optimize treatment efficiency and water quality standards.
15. Maintains and updates database relative to plant and equipment maintenance.
16. Performs related duties as required.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES

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 and DDCS software.

Thorough knowledge of the principles of biology, chemistry and hydrology related to water treatment.

Experience in and knowledge of a membrane plant's operation.

Working knowledge of the safe operation and maintenance of all plant vehicles, equipment, and power tools.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES (Cont)

Knowledge of British Columbia regulations as they pertain to public health, drinking water, safety, operating permits, and City policies.

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.

Work may involve constant handling of somewhat awkward and/or medium weight objects or tools/equipment and/or climbing structures. Core work activities may require sitting or standing for prolonged periods throughout the workday, with limited opportunity for relief.

Ability to communicate with courtesy and tact in order to obtain and/or distribute routine data or information to internal and external customers. This may involve the ability to probe for information and clarification.

MINIMUM TRAINING AND EXPERIENCE REQUIRED

Completion of Grade 12 and a diploma from a recognized technical institute in Water Quality Technology.

Level III EOCP Water Treatment Certificate or eligibility in British Columbia for same, plus 1 year of experience in operating at Level III water treatment plant operations.

Possession of a valid Chlorine Handler Certificate.

Possession of a valid B.C. Driver's Licence, Class 5.

GENERAL STANDARDS

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.

GENERAL STANDARDS (Cont)

Meets the City's core competencies in the areas of Building Relationships, Developing Self & Others, Focusing on Customer, Communicating Effectively, Thinking Strategically and Collaborating for Results.

Adheres to City policies and objectives.

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