




POSITION TITLE: WATER TREATMENT PLANT OPERATOR

REFERENCE NO: 51405

DIVISION: DEVELOPMENT AND INFRASTRUCTURE

DEPARTMENT: ENVIRONMENTAL UTILITIES

APPROVAL DATES: BY:  **DATE:** Sept 18, 2006
COMMISSIONER OF DEVELOPMENT AND INFRASTRUCTURE

BY:  **DATE:** Nov 29/06
GENERAL MANAGER OF HUMAN RESOURCES

GENERAL DESCRIPTION:

The Water Treatment Plant Operator is accountable for the safe and efficient operation of equipment associated with the production and distribution of the municipal water supply, as required, for the City of Medicine Hat and area. This includes making operational decisions to maintain water quality to meet all Alberta Environment Approval and Canadian Drinking Water Standards to protect public health. This position requires quick decisions in trouble situations to prevent upsets and maintain the integrity of the City's potable water system. On occasion this position is involved in providing support to Power Plant operations.

ORGANIZATIONAL RELATIONSHIPS:

- Reports directly to the Treatment Plant Process Controller.
- Maintains relationships with Water Distribution and Wastewater Collection Operators, Electrical and Instrumentation Technicians, Environmental Utility engineering and administration staff and Power Plant staff.
- Initiates call out for maintenance personnel when unscheduled maintenance work is required outside of regular working hours.
- Supervises casual summer staff.
- Work performance is subject to City and department policies; applicable government legislation and safety procedures; utility bylaws and work procedures.

MAJOR DUTIES AND RESPONSIBILITIES:

- Responsible for the safe and efficient operation of equipment as well as daily and other routine maintenance.
- Responsible for the continuous monitoring and calibration of equipment to ensure compliance with approvals and established quality guidelines.
- Required to troubleshoot and take corrective action in order to prevent upsets and to control the effects of any upset.
- Required to assist in the training of new operators and other Water Plant Staff.
- Plans, participates in and completes other projects or experiments, as assigned.
- Ensures accurate completion of operational, maintenance and other records necessary to ensure Alberta Environmental Protection (AEP) Approval and plant process requirements are being met.
- Ensures by written and verbal communication that administrative and maintenance personnel are kept informed regarding the plants' operational and mechanical status.
- Performs sampling and laboratory tests, as required.
- Arranges for short term coverage of unexpected operator vacancies (i.e., illness, etc.)
- Ensures that safety, housekeeping and work standards are observed.

- Assist with equipment maintenance scheduling by attending maintenance planning meetings and ensures proper safe out for maintenance work.
- Monitors the Water Distribution System to establish accurate system demand requirements and adjusts plant operation and fill rates for the major reservoirs to meet system demand while balancing production.
- Required to obtain an Alberta Level III Water Treatment Certification within the time frame outlined below. This includes the completion of an assigned study program. Progress as defined by the Manager of Treatment Plants must be achieved within the probationary period, and as outlined in the Collective Agreement.
- Once Level III Certification is achieved this position will rotate into a relief operations role as required. The specific focus of this role is outlined on an attached summary.
- Performs other duties, as assigned.

NECESSARY KNOWLEDGE, ABILITIES AND SKILLS:

- Must have the ability to successfully complete the Alberta Level III Water Treatment Certificate.
- Sound knowledge of current practices, materials, tools/equipment and methods used in Water Treatment Plant operations and maintenance.
- Sound knowledge and skill in the proper and safe operation of plant vehicles, equipment and tools.
- Sound knowledge of water treatment distribution systems to establish operating and pumping parameters.
- Sound knowledge of plant heating, ventilation, electrical and instrumentation/control systems.
- Sound knowledge of the principles of supervision.
- Must possess a mechanical aptitude and have mechanical abilities.
- Working knowledge of applicable safety regulations, standards, policies and procedures.
- Knowledge of Alberta Environment regulations and City Approval documents.
- Ability to understand manufacturers and engineering documents, specifications and drawings.
- Ability to establish and maintain effective working relationships with others.
- Ability to express ideas clearly and effectively, orally and in writing.
- Ability to operate a personal computer for planning maintenance functions.
- Ability to understand and execute oral and written instructions.
- Ability to work with minimal supervision.
- Ability to train and direct assistants in safe and effective operations and maintenance activities.
- Ability to perform heavy physical work.
- Must possess a good working knowledge of personal computers.

NECESSARY TRAINING AND EXPERIENCE:

- Successful completion of Grade 12 or high school equivalency diploma with a minimum of Math 30 and Chemistry 30.
- Must possess a Level III AEP Water Treatment Certificate.
- Valid Class 5 operator's license and an acceptable driving record with the ability to obtain a City of Medicine Hat driver's license.
- Must hold a valid First Aid Certificate and a current Defensive Driving Certificate.
- An equivalent combination of management approved training and experience may be considered.

SALARY RANGE:

- As per the Collective Agreement with the Local Union 254 of the International Brotherhood of Electrical Workers (Electric Generation and Water Treatment Plants).

RECRUITMENT ISSUE FOR UNDERFILLING CERTIFICATION REQUIREMENTS

**Minimum Plant Certification requirement is:
Alberta Environment Water Treatment Level III**

Certification requirement progression is as follows:

LEVEL I

- Must have successfully completed Grade 12 education or high school equivalency diploma (minimum Math 30, Chemistry 30).
- Operating experience and/or certification is desirable.
- Minimum 12 months of operating time required.
- AEP Certification Level I (certification must be achieved within 18 months).
- Sacramento Water Treatment Book 1 or AEP equivalent.

LEVEL II

- Minimum of 12 months of operating time required after obtaining Level I.
- AEP Certification Level II within 18 months of achieving Level I.
- Sacramento Water Treatment Book 2 or AEP equivalent.

LEVEL III

- Minimum of 12 months of operating time after obtaining Level II plus 2 years of DRC (Direct Responsible Control) plus 90 Continuing Education Units (CEUs) or 2 years of post secondary education in a related field.
- AEP Certification Level III within 36 months of achieving Level II.
- Sacramento Utility Management or City equivalent.

LEVEL IV

- Minimum of 12 months of operating time after obtaining Level III plus 2 years of DRC (Direct Responsible Control) plus 180 Continuing Education Units (or a combination of CEUs and DRC) or 4 years of post secondary education in a related field.
- AEP Certification Level IV.

RELIEF OPERATIONS FOCUS SUMMARY

- Includes all duties as outlined in the Water Plant Operator Job Description.
- Provide shift coverage as required for WTP Operations staff.
- Plan, participate in and complete special projects / duties / experiments and QA/QC as assigned.
- Must have the ability to analyze overall plant performance and make recommendations for improved efficiency and performance.