



The Organization

The Atlantic First Nations Water Authority (AFNWA) represents progress, innovation, and a long-term solution for water and wastewater issues that affect Atlantic First Nations communities. Incorporated on July 18, 2018, as a non-profit organization under the Canada Not-for-profit Corporations Act, the AFNWA is a ground-breaking First Nation owned organization providing water and wastewater services to participating communities. This approach ensures a culturally appropriate, service oriented, and technically strong First Nations water utility which owns, operates, and maintains water and wastewater systems.

As of June 2023, nineteen (19) First Nations communities have indicated their interest in becoming members of AFNWA by signing Band Council Resolutions (BCRs) indicating their desire to formally participate. These communities, located within Nova Scotia, New Brunswick and Prince Edward Island represent over 60% of the total Atlantic First Nations by population. Using a scalable delivery model to incorporate further membership in the future, the AFNWA governance and organizational structure shows promise for a model which can be utilized by other First Nation communities across Canada. In that regard, AFNWA is blazing a trail for others to follow.

The management structure of the AFNWA is aligned to deliver full water and wastewater services for First Nation communities with a central main office in Millbrook and decentralized approach to operations. This model reflects current best practice for service delivery to First Nation communities in Canada. It incorporates a hub and spoke approach to operations for optimal service delivery and to foster a deeper relationship with the communities served by the utility.



ATLANTIC FIRST NATIONS WATER AUTHORITY (AFNWA) POSITION DESCRIPTION

Position: Utility Technologist- Instrumentation & Controls/ Industrial Electrician

Department: Operations- Technical Services

Primary Function: Responsible for the operation, maintenance, integration, and configuration of all electrical and SCADA Monitoring Systems throughout AFNWA. Assist with the installation, maintenance, and calibration of instrumentation, radio communication equipment, master meters, pressure control valves, generators, and other associated electrical equipment and devices in the system. Perform maintenance to water and wastewater booster stations and fire pumping equipment. Support Operations staff in the operation of various pumping and treatment systems.

Duties and Responsibilities:

1. Review the SCADA monitoring system for alarm conditions, operational status, and communication problems. Log and recommend priority response for necessary repairs.
2. Review, record and document daily consumption, flow patterns, pressures and other system information displayed on the SCADA monitoring system or accessed directly from field equipment.
3. Perform preventative maintenance and inspections of all pumping and treatment plants, as required.
4. Maintain electrical and control equipment as part of routine preventative maintenance program.
5. Program, organize, design, and configure graphic displays and information on various SCADA software systems.
6. Responsible to implement alarm set points, system operating parameters, levels, flow rates and automatic controls in the utility that are computer operated and monitored through the SCADA system.
7. Responsible to test, maintain, repair, control and prepare documentation for booster station equipment, electric generators, fire pumps and control equipment for the operation of the water and wastewater system.
8. Review water consumption patterns in the utility and identify significant water losses and pressure control problems that require Operations staff action.
9. Responsible to undertake and/or advise Operations staff of work to adjust pressure reducing valves, controls, pumps and other associated instruments and equipment.
10. Assist the Engineering department in the review of designs for SCADA and related infrastructure installations.
11. Respond to emergency calls for the various SCADA Systems and associated equipment throughout the service areas, as assigned by the Technical Services Superintendent.
12. Assist Operations staff (treatment plants, water distribution and collection system) in the

- installation, calibration and maintenance of instrumentation and equipment.
13. Responsible to test, configure and install instrumentation in new facilities to be monitored on the SCADA System.
 14. Responsible to conduct weekly backup of SCADA monitoring system, log all operational information and data monitored through the SCADA system for long term storage.
 15. Select, install, calibrate, monitor, and ensure the accuracy of master flow meters, analyzers, instruments, and electrical equipment throughout the service areas.
 16. Undertake evaluation and repairs to various electronic and radio telemetry equipment, wiring, electrical circuits, and other hardware used in the treatment, pumping, monitoring and communications systems.
 17. Perform other miscellaneous duties as designated by the supervisor, which could include maintenance on mechanical equipment such as pumps and feeders.
 18. Responsible for assisting with the location of leaks, lines (GPR), valve maintenance and other distribution and collection system preventative maintenance.
 19. Maintain an inventory of necessary parts for all equipment under his/her responsibility.
 20. Perform other related duties as may be assigned.

Reporting Relationships:

Reports to: Superintendent of Technical Services

Supervises: Provides functional supervision to assigned Operations staff.

MINIMUM QUALIFICATIONS:

Education:

- Grade 12 or equivalent
- Must be a Journeyman Industrial Instrumentation and Control Technician/ Technologist and/or an Industrial/ Commercial Electrician with a Certificate of Qualification in the related trade under the N.B Apprenticeship and Trades Qualification Act or another provincial equivalent. Consideration will be given to candidates who are in the final stages of achieving this Certification. Preference will be given to those with dual ticket qualifications.
- PLC Certified Training for Rockwell Allen Bradley to be considered an asset. (Must be willing to attend specialized PLC Training aligned with AFNWA equipment)

Experience:

- Minimum 5 years related experience in Instrumentation and/or Electrical.
- PLC programming, networking, systems integration, and HMI (Human Machine Interface) experience to be considered an asset.
- Previous work related to First Nations water and wastewater operations is considered an asset.
- The ability to speak Mi'kmaq or Wolastoqiyik is considered an asset.
- Demonstrated understanding of and lived experience with First Nations or Indigenous communities is considered an asset.

Certificates / Licences / Registrations:

- A current Certificate of Qualification in an Industrial Instrumentation and/ or Industrial/ Commercial Electrical trade issued under the NB Apprenticeship and Trades Qualification Act or another provincial equivalent (or be able to attain within a reasonable timeframe as approved by the employer).

- Must have or be willing to obtain Operator Certifications - Level 2.
- Confined Space Entry Certificate (optional)
- Fall Arrest Certificate (optional)
- Valid Class 5 Drivers License

Required Knowledge, Skills, Abilities:

- Demonstrated knowledge of mechanical equipment functions, such as pumps, motors, and valves.
- Knowledge and skill to install, repair and troubleshoot instrumentation, control and electrical equipment.
- Capable of operating, configuring, interrogating, and troubleshooting SCADA software systems.
- Must have strong computer skills, operating knowledge of data management, data bases, PLC programming, and instrumentation maintenance.
- Required to achieve and maintain other related certifications, including but not limited to, WHMIS, Confined Space Entry, and Transportation of Dangerous Goods.
- Must have ability and knowledge to take on new technology and equipment for Utility Maintenance and growth, including Ground Penetrating Radar, Valve Exerciser, Correlators, Leak Detection, etc. and attend training as required.

Physical Demands/Working Conditions:

Location: This position will be primarily travel based serving AFNWA communities in Eastern and Western New Brunswick including Elsipogtog, Neqotkuk, and Bilijik First Nations. The position will also require travel to other AFNWA communities in Nova Scotia at times. The candidate will need to reside within a reasonable distance from these communities or in one of these communities, located in New Brunswick.

- Position will include use of company vehicle for travel as required.
- Working Conditions: within water and wastewater treatment plants, pump stations, outdoors and underground in an environment that includes dust, fumes, volatile organic compounds, noise, odor, heat, cold, etc.
- May be required to work alone.
- Utility Technologists are required to be on call on a rotational basis. During this time, must remain ready to work for the entire duration of the on-call schedule and will be compensated at a rate of \$500 per week. If called out, you will be compensated in accordance with the overtime rates.
- Frequently traveling throughout member communities within Atlantic Canada.

Hours of Work: 40 hours per week plus overtime

Rate of Pay: \$68,465 to 85,581 - CPI, Overtime and Standby pay will be in addition.

CLOSING DATE: Friday March 1, 2024

APPLICATION INSTRUCTIONS: Kindly forward all inquiries and applications to HR@AFNWA.CA. Application documents will only be accepted in .PDF or .DOC format. The applicant will receive an email confirming that the application has been received and all attachments are accessible. Successful candidates will be contacted on or before March 8, 2024, for next steps.