Manitoba Hydro energy for life

## EMPLOYMENT OPPORTUNITY

Closing Date: 02.04.2024

# **HYDRAULIC STUDIES ENGINEER**

## WINNIPEG, MB

Manitoba Hydro is consistently recognized as one of Manitoba's Top Employers!

### **Great Benefits**

- Competitive salary and benefits package.
- Defined-benefit pension plan.
- Nine-day work cycle which normally results in every other Monday off, providing for a balanced approach to work, family life and community.
- Flex-time and partially remote work schedule (providing the option to work remotely 3 days per 2 week period), depending on nature of work, operational requirements and work location.

Manitoba Hydro is a leader among energy companies in North America, recognized for providing highly reliable service and exceptional customer satisfaction. Join our team of Manitoba's best as we continue to build a company that supports innovation, commitment and customer service.

We are seeking a Hydraulic Studies Engineer to join our Water Resources Department. Under the general direction of the Ice and Hydraulic Engineering Team Lead, you will be responsible for executing hydraulic engineering studies to support the planning, design, operation, and licensing of Manitoba Hydro's hydraulic system and hydraulic assets.

#### **Responsibilities:**

- Perform a specialized technical function in powerhouse hydraulics, unit/turbine efficiency monitoring, assessment, and testing.
  Perform turbine hydraulic performance testing at hydro generating stations in accordance with corporate and industry
- standards, including considerations for testing of fish friendly and/or aerating functionality of turbines.
  Provide hydraulic engineering expertise to the design and implementation of operational performance, efficiency monitoring, and supporting hydraulic system optimization.
- Conduct hydraulic modelling studies (1D, 2D, and 3D) in support of MH business, examples include asset planning, design, construction, system operations, and decommissioning.
- Develop and execute technical hydraulic studies in support of hydraulic system operation, stakeholder engagement, regulatory and licensing initiatives, and asset planning and maintenance.
- Provide line advocacy for academic and industry collaboration projects pertaining to hydraulic engineering and powerhouse hydraulic performance.
- Conduct ice engineering assessment and design studies in support of system operation, ice mitigation, stakeholder engagement, and asset management.
- Develop and maintain technical competency and awareness of new developments and applications in hydraulic engineering, computational fluid dynamics, and river/lake ice.
- Prepare formal reports, technical memorandum and make technical presentations internal and external to the corporation as required.

#### **Qualifications:**

- Graduate in Civil or Mechanical Engineering from a university of recognized standing with a minimum of six years related engineering experience.
- Professional member in good standing with Engineers Geoscientists Manitoba.
- A M.Sc. or higher degree in water resources engineering or fluid mechanics is an asset.
- Experience in water regime and hydraulic assessments, including fundamental knowledge of river hydraulics, hydraulic structures, and turbomachinery.
- Good computer skills including practical experience in 2D and 3D computational fluid dynamic modelling.
- Demonstrated ability to work effectively with personnel in other departments, engineering companies, researchers/academia, and with specialized consultants.

- Must have excellent written and oral communication skills.
- Possess initiative and mature judgment with the ability of making and implementing sound decisions.
- Must be willing to travel and work overtime.
- Possess a valid Province of Manitoba driver's license.

#### Salary Range

Starting salary will be commensurate with qualifications and experience. The range for the classification is \$44.82 - \$61.88 Hourly, \$85,889.18 - \$118,580.54 Annually.

### Apply Now!

Visit www.hydro.mb.ca/careers to learn more about this position and to apply online. The deadline for applications is APRIL 2, 2024.

We thank you for your interest and will contact you if you are selected for an interview.

# This document is available in accessible formats upon request. Please let us know if you require any accommodations during the recruitment process.