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Position Title: *Senior Project Engineer (Maintenance & Reliability Engineering)

Position Status: Full-Time Regular

Department: Liquid Waste Services

Employee Group: Exempt

Location: 4515 Central Boulevard, Burnaby

Salary Range/ Wage Rate: Professional / Technical, Level P3A (\$123,587.51 - \$145,395.95 annually) (2024 wage rates)

Our Liquid Waste Services Department is seeking a Senior Project Engineer who will work within the Maintenance Engineering and Reliability department and conduct root cause analysis, analyze equipment failure data, provide sound recommendations for preventative maintenance schedules, identify and develop process improvement and procedures with the aim of improving maintenance practices. The Senior Project Engineer may also take on project management projects in support of the maintenance field services team.

You are: A professional Engineer with strong reliability and field maintenance experience with industrial process facilities. You have a proven track record as a reliability engineer and experience as a project manager. You have experience with CMMS systems and condition monitoring programs. You have excellent communication skills and an aptitude for problem solving and thinking outside of the box.

The Senior Project Engineer reports to the Program Manager.

This role:

Performs complex and varied root cause analysis using techniques such as fish bone, 5 Whys, tap root, and fault tree analysis. Preventive maintenance optimization, equipment failure analysis, and project management work for wastewater treatment plant facilities, collection systems and pump stations.

Applies reliability analysis techniques such as FMEA and RCM to improve equipment reliability.

Analyzes maintenance data to identify trends, patterns and potential bad actors. Familiar with KPIs such as MTBM, MTBF, MTTR etc.

Designs and creates maintenance programs by utilizing CMMS.

Utilizes condition-based maintenance technologies such as vibration, infra-red, ultrasonic and oil analysis to drive maintenance program from time based to condition-based maintenance.



Applies codes and standards such as API 510, CSA B51, NB23, ASME section VIII, ANSI/NETA MTS-2023, and other standards required to effectively test, inspect, repair, maintain, modify and install critical equipment.

Works collaboratively with field staff to resolve complex technical, design, operational, or interpersonal issues staff encounter while doing their work. Establish effective working relationships with various outside agencies as well as other internal departments. Works collaboratively with departmental staff to deliver on strategic initiatives.

Manages asset integrity program of fixed equipment by designing and optimizing maintenance plans for fixed equipment like heat exchangers, pressure vessels, and boilers to minimize downtime and maintenance costs.

Responsible for overall project budgets and monitors and controls costs ensuring the effective and efficient expenditure of allocated funds. Develops and reviews RFQ's, RFP's and tenders, working with Purchasing to ensure the timely award of contracts. Contributes to the preparation of long-range financial plans and provides input to strategic initiatives.

Provides guidance to field staff on technical issues, makes decisions and provides recommendations on a variety of issues with broad policies and mandates as guidelines. Uses ingenuity to devise original, practical and economical solutions.

Prepares and reviews project designs, technical reports and contract specifications for consulting services, equipment and construction. Acts as Metro Vancouver's appointed representative in assigned matters of project and contract obligations including project initiatives, site inspections, and determination of regulatory requirements. May be required to negotiate significant technical or financial interest on behalf of Metro Vancouver.

Directs the actions of consultants recommending changes to scope and negotiating new terms as required. Deals with full range of project dimensions that may include legal, property, public contact, and liaising with various levels of government, and other regulatory bodies.

Prepares and reviews a range of written material including reports, recommendations, technical memoranda and technical specifications. May deliver presentations for various audiences including the public as required.

Explains difficult concepts and persuades others to adopt a point of view, supports position with evidence, research or experience gained in similar situations. Typically acts as a project leader and actively works to encourage teamwork, collaboration and efficiency.

May supervise professional engineers, EIT, and/or technical staff engaged in complex technical work. Peer reviews the work of colleagues and provides guidance to consulting engineers and technical staff. Acts as a resource to staff members for advice and guidance on potential approaches and problem situations. May be a resource for presentations and questions to the Metro Vancouver board, committees and municipal councils.

May work as a technical/specialist resource, collaborating with senior engineers, management and/or government officials in the development of regulatory or government policy initiatives affecting Metro Vancouver.

Participates in the design, preparation and approval of engineering standards in area of specialty.

Performs other related duties as required.

To be successful, you have:

A Bachelor of Applied Science degree in a relevant engineering discipline. 4-6 years recent related experience following professional registration; or an equivalent combination of training and experience.

Membership or eligibility for immediate membership as a registered Professional Engineer (P.Eng.) with the Engineers and Geoscientists of British Columbia (EGBC).

Sound technical knowledge and understanding of engineering principles and their application in relevant discipline. Ability to act as a resource to staff and provide sound and practical guidance for unusual or problem situations.

Ability to interpret and apply engineering and technical guidelines and principles related to area of specialization such as technical manuals, codes and regulations, contracting policies, safety regulations and corporate and board policies. Ability to adapt or adjust guidelines and procedures for unique or difficult situations.

Proven contract administration and project management skills. Demonstrated ability to organize and prioritize a complex series of project components for large complex projects to meet multiple time based deliverables requiring a high level of detail and accuracy. Ability to resolve problems within established guidelines and procedures; ability to use judgment to determine which methods are applicable in any given situation.

Excellent written and oral communications skills. Ability to communicate effectively both verbally and in writing including letter, report writing and presentation skills. Ability to explain difficult concepts and persuades others to adopt a point of view or way of doing things.

Strong interpersonal skills and the ability to build and maintain respectful working relationships with internal and external contacts under circumstances that are considerably complex and time sensitive. Skill in dealing openly, tactfully and sensitively in a variety of situations including dealings with the public, member municipalities, government agencies and contractors. Demonstrated ability to work in a team oriented work environment and deal effectively with disagreements and prevent the escalation of conflict.

Ability to work under broad direction and use significant independent judgment to problem solve when more than one option is possible. Ability to identify opportunities to address emerging needs. Proven ability to take initiative, work with minimal supervision and effectively manage multiple projects and deadlines. Ability to meet timelines and objectives requiring persistence to overcome obstacles.

Demonstrates understanding of the organizational culture, processes and mechanisms necessary to attain work objectives; upholds Metro Vancouver's reputation through positive and forthright dealings with other organizations and members of the public.

Ability to supervise, coach and guide others while enhancing individual and team effectiveness. Ability to mentor and foster the development junior engineer, technical staff and direct reports as required. Proficiency using Microsoft office programs, including Word, Excel, Outlook, and Project.

Valid BC Class 5 Driver's license.

****Candidates with lesser experience may be considered at the Project Engineer level, along with the applicable rate of pay.***

Our Vision:

Metro Vancouver embraces collaboration and innovation in providing sustainable regional services that contribute to a livable and resilient region and a healthy natural environment for current and future generations.

Metro Vancouver employees proudly serve the region and demonstrate the behaviours and attributes of six leadership competencies: Accountability, Adaptability, Building and Nurturing Relationships, Communication, Continuous Learning, and Strategic Thinking and Action.

At Metro Vancouver, we are committed to cultivating a diverse, safe, equitable, and inclusive work environment for all. We strive to attract and retain a talented, diverse workforce that is reflective of the region we serve. If an accommodation is required during the recruitment and selection process, please contact careers@metrovancouver.org for support. Learn more about our commitments to diversity, equity, and inclusion [here](#).

Please follow this link <https://metrovancouver.org/about-us/careers> to our Careers page where you can submit your application by February 10, 2026.