

June 25, 2018

Dear Recruitment Team,

I am writing to you to express my great interest in the Environmental Engineer or Scientist (Intermediate Associate) position at 30 Forensic Engineering. I am a motivated young professional with four years of industry experience in environmental management. I have an academic background in chemical engineering and environmental science. I am looking to expand my knowledge and gain further environmental examination and failures.

I have worked at Toronto Hydro Electric System Limited for four years where my role was to maintain the organization's environmental management system, provide advice and recommend strategies to mitigate negative environmental impacts. My most significant projects pertained to Polychlorinated Biphenyl or PCB Management and removal. The company had developed the program in 2014 during my internship. When I had returned after graduating, I had continued in the management of the program and in 2018, we had removed 900 at-risk equipment from our system in our first phase. This required coordination from field operations, contractors, engineering departments and cost over 1 million dollars.

I've also gained significant insight on the management of projects and records regarding building maintenance, hazardous materials, site remediation and assessments for large construction projects, and how to provide successful and sustainable solutions. I have also used my knowledge of Environmental Site Assessments, Risk Assessments taught by current industry professionals and my own research to keep up with current legislation and best practices. Furthermore, I spent time coordinating site investigations for remediation. In the 30 Forensic Engineering team, I would like to perform assessment on larger scale projects, because I have a passion for learning regarding environmental assessments and remediation as they relates to infrastructure development.

To further enhance my knowledge of environmental sciences, I have also undertaken studies for a Masters of Environmental Science at the University of Toronto part-time. I have begun research on fluid flow behaviour at low depths to understand and assess long term impacts to offshore infrastructure in the Great Lakes. The combination of engineering and environmental physics knowledge allowed me to understand the impacts of engineering design and enhanced my analytical skills.

I believe my industry knowledge and my diverse education will make me a valuable member of the 30 Forensic Engineering Team. Please find my resume attached and do not hesitate to contact me at if you have any questions or concerns. I look forward to hearing from you.

Kind Regards,
Aqsa Arif, B.A.Sc., EIT

SKILLS SUMMARY

- Registered Engineer-In-Training under Professional Engineers Ontario.
- Four years of progressive work experience in environmental management systems, spill remediation/investigation, and multi-disciplinary project planning in urban environments.
- Extensive knowledge on writing Phase One and Phase Two ESA reports and administrative requirements to file a Record of Site Condition.
- Experience in health, safety and designated substance requirements in Ontario.
- Comprehensive knowledge of CEPA, OHSA, PCB Regulations, O.Reg 153/04, OCWA.
- Highly proficient in ArchGIS, Microsoft Office Suite, MATLAB, AutoCAD and Tableau.
- Excellent knowledge through academic courses of brownfield redevelopment, water and wastewater treatment processes, fluid dynamics and transport systems.
- Owner of valid Class G Ontario Driver's License

WORK EXPERIENCE

ENVIRONMENTAL, HEALTH AND SAFETY ASSOCIATE, TORONTO HYDRO **2017- PRESENT**

- Attended site remediations for discharges into the environment, liaising with asset and environmental remediation teams and external parties such as MoECC, ECCC and City of Toronto Water officers.
- Prepared reports for internal and external parties analyzing impacts of PCB discharges.
- Prepared assessments for mobile oil-water separator systems for use in short term projects to reduce cost of remediation and waste hauling.
- Developed a new automated scoring system for reactive job planning based on risk to the environment and to the corporation.

INVESTMENT PLANNING ANALYST (SECONDMENT), TORONTO HYDRO **2017**

- Prepared a Maintenance Planning Evaluation recommending changes to current maintenance processes based on climate change impact evaluations to be used for the Long-Term Investment Planning Portfolio.
- Formulated an asset health index for large voltage transformers based on insulating material test results and maintenance inspections to be used for capital projects.
- Participated in Reliability Centred Maintenance workshops to develop maintenance schedule for large stations housing several sulphur hexafluoride insulated equipment.

ENVIRONMENT, HEALTH AND SAFETY ANALYST, TORONTO HYDRO **2015-2016**

- Collaborated with Engineering and Field Service Departments to implement protocols for mitigation of PCBs into environment which led to a capital project to replace around 900 at-risk transformers.
- Prepared technical reports for leaders to present trends on waste generation and discharges to the environment to determine estimated outlooks for Key Performance Indicators rigorously using Microsoft Excel spreadsheets.

SENIOR TECHNICAL STUDENT, TORONTO HYDRO

2013-2014

- Prepared CAD drawings for asbestos management of substations and points of impingement for HVAC equipment requiring ECA and EASRs.
- Conducted field study for Compliance Approval gaps with Third Party Auditor in three work centres within Toronto.
- Tracked and reported emissions data for Nation Pollutant Reporting Index and ChemTRAC from cooling towers, natural gas generators and operational practices.
- Developed Preliminary Polychlorinated Biphenyl Management Plan

ACADEMIC EXPERIENCE

FLUID FLOW PAST COMPRESSED AIR ENERGY ACCUMULATORS, RESEARCHER 2017-PRESENT

- Conducted analysis of fluid flow past compressed air energy storage accumulator balloons located offshore Toronto Harbour in Lake Ontario.
- Determined characteristic behaviour as it relates to current speed and possibly fouling rates in underwater infrastructure using MATLAB.
- Delivered hypothesis poster presentation at the 2017 International Association for Great Lakes Research (IAGLR) Conference and panel presentation at the 2018 IAGLR Conference.

TANTALUS RARE EARTH ELEMENTS EXTRACTION SYSTEM, DESIGNER

2014

- Recipient of Chemical Engineering Process Plant Design Award for design of extraction system of 10,000 t/a of rare earth elements using heap leach method.
- Developed mass and energy balance for two key operational units to optimize use of limited raw materials and recycled 43% of pure water within system.
- Ensured tailings toxicity and air emission levels complied with EU environmental laws by incorporating components such as flue gas scrubbers and de-sulphurization units
- Drafted P&ID for scrubbing system and process flow diagram for solvent regeneration.

TRAINING/COURSES

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| • AIR, NOD and GHG Emissions Regulation & Compliance, CANECT | 2016 |
| • Spills & Environmental Emergencies: Liability & Best Practices, CANECT | 2016 |
| • Foundations of Project Management, University of Toronto | 2016 |
| • CAD and FEA, CAD Training Consultants, | 2013 |

EDUCATION

M.Env.Sc, Biophysical Interactions in Terrestrial and Aquatic Systems, Part-time,
University of Toronto **2016-2018(EXPECTED)**

B.A.Sc, Chemical Engineering,
University of Toronto, Honour Roll Dean's List 2014-2015

2010-2015