

Manager, Process Engineering

At Carbon Engineering Ltd. (CE), our vision is to lead the world in the large-scale removal of carbon dioxide from the air and advance our shift to a sustainable carbon-neutral society. Based in the outdoor recreation hub of Squamish, BC, this role will be a great fit for a technically apt, curious and hands-on individual who feels passionately about this vision and wants to be a part of a fast-paced culture.

Position Scope

Carbon Engineering is looking to add an engineer to their Operations Management team who understands large industrial process development and optimization. Experience working in the chemical, electrochemical, or petrochemical process industry would be ideal. Reporting to the Manager, Plant Operations, you will be spearheading the improvement of game-changing processes and equipment to lower cost and improve performance of Direct Air Capture (DAC) technologies. You will be expected to build a team that fosters innovation while advancing existing processes and implementing new processes and approaches to improve productivity and efficiency.

Responsibilities

- Drive characterization, performance optimization, and yield improvement activities on benchtop/pilot scale unit operations to de-risk commercial plant KPI baselines.
- Conduct sensitivity analyses to assess relative cost-benefit/priority for process KPI optimization in pursuit of commercial plant CapEx/OpEx targets.
- Identify, implement, and champion best practice in experimental design, data analysis and Statistical Process Control.
- Build, lead, and mentor a team of process engineers to drive forward Carbon Engineering's process. Create an environment that fosters innovation while implementing new processes and approaches to improve productivity.
- Communicate Carbon Engineering's technological vision, expertise and execution to internal and external stakeholders.

Experience

- Education: PhD or MSc in Chemical Engineering or Chemistry
- 10+ years of relevant chemical process characterization and optimization experience.
- Experience in new product development cycles, having demonstrated the ability to bring innovations from concept to reality.
- Documented application of benchtop/pilot scale equipment/processes for proof-of-concept characterization.
- Delivered and analyzed designed experiments that screen critical process variables and solve complex problems.
- Demonstrated transfer of new technologies from development to production.
- Experience preparing specifications for new equipment and processes.
- Concrete CapEx and OpEx cost estimation for new processes and equipment.
- Strong understanding of chemistry and chemical engineering concepts including mass transfer, heat transfer, thermodynamics, and kinetics.
- Strong understanding of statistically based experiment design, data analysis, and process capability analysis.

In addition to technical skills, the right fit will:

- Proven leadership of process and equipment development teams.
- Collaborative working style, values team performance above individual recognition.
- Leadership experience within a rapidly growing company.
- A self-starter with the ability to work independently towards multiple deadlines with minimum supervision in a fast-paced environment.
- Hands-on experience and comfort working in a development environment.
- Thrive on doing things that have not been done before (explorer mindset).
- Exceptional written and verbal communication skills.
- This position is based in the outdoor recreation hub of Squamish, BC, so if not already qualified to work in Canada you must be eligible to apply for a Canadian work permit.

If this seems like the dream job for you, send your resume to careers@carbonengineering.com and quote “Manager, Process Engineering” in the subject line.