

## Senior Process Engineer – Direct Air Capture

At Carbon Engineering (CE), our vision is to lead the world in the large-scale removal of carbon dioxide from the atmosphere 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

This is a senior technical role for a Chemical or Process Engineer who understands industrial processes, operations, equipment and laboratory analytics. The ideal candidate will have experience developing, refining and optimizing chemical process plants with a focus on flue gas cleaning, pulp and paper or similar plant operations.

- Reporting to the Manager, Process Engineering (Operations).
- Drive process characterization and optimization.
- Mentor junior Process Engineers.

### Responsibilities

- Become the resident chemical engineering subject matter expert in our Direct Air Capture (DAC) technology, with a solid fundamental understanding of our various process units.
- Identify process and equipment characterization opportunities across CO<sub>2</sub> capture, purification, compression and storage operations.
- Use targeted Design of Experiments to develop and execute test campaigns that deliver equipment and process cost/efficiency enhancements.
- Mentor junior Process Engineers in process optimization, experimental design, data analysis and plant performance improvement.
- Guide junior Process Engineers and Operators in the development and QC of test plans as well as protocols for test campaigns.
- Analyze test data, develop conclusions and communicate recommendations to the plant design team.
- Research process equipment and liaise with vendors to arrange on-site pilot testing.
- Identify CE's process Key Performance Indicators (KPIs) and develop an operating approach based on Statistical Process Control (SPC).
- Make use of appropriate Quality Management tools and techniques to ensure that all learning and development opportunities are identified and exploited.
- Write, maintain and update Standard Operating Procedures (SOPs).
- Collaborate with CE's plant engineering team to define future plant control narratives and philosophies.

## Qualifications and Experience:

Education: MSc/PhD Chemical Engineering or Process Engineering.

Experience: 8+ years of experience developing, refining and optimizing chemical processes.

- Strong knowledge of gas-liquid mass transfer, reaction kinetics, and thermodynamics.
- Experience with mathematical modeling and simulation of chemical systems
- Specific plant operations experience in flue gas cleaning, pulp and paper, or similar industry.
- Experience specifically related to CO<sub>2</sub> absorption would be an asset.
- Background in industrial plant design and development is highly desirable.
- Hands on operational experience with chemical process equipment would be an asset.
- Lab experience as it relates to process control and monitoring.
- Experience and comfort working in an R&D environment.

In addition to technical skills, the right fit will:

- Be safety conscious, proactively identify risks, participate in safety audits and inspections, observe and execute safety practices and rules in the workplace.
- Be a self-starter with the ability to work independently towards multiple deadlines with minimum supervision in a fast-paced environment.
- Have a collaborative working style and value team performance above individual recognition.
- Thrive on doing things that have not been done before (explorer mindset).
- Have strong analytical, technical writing and problem-solving skills, as well as strong verbal communication skills.

If this seems like the dream job for you, send your resume to [careers@carbonengineering.com](mailto:careers@carbonengineering.com) and quote "Senior Process Engineer - DAC" in the subject line.