



Sr. Process Modeling Engineer

At Carbon Engineering, 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 someone who feels passionately about this vision, and who wants to be a part of a fast-paced culture where contributions are noticed.

Position Scope

This is a senior engineering position responsible for the development of process simulations deliverables and additional objectives as defined by the management chain. You will identify process changes which improve the technology, enable more flexibility in the requirements for the mechanical and electrical teams, or improve the simulations and simulation tools used by the engineering team. You will achieve this through research, analysis of plant data/simulations, and review of KPI metrics.

- Reports to the Manager, Process Engineering.
- Foster and maintain a positive culture within the Process Engineering Team; a questioning mindset and recognize failure as a learning opportunity.
- Collaborate with direct manager to set targets for process development, simulation development, and deliverables.
- Mentor, support, and guide engineers in their professional development to ensure they develop both the technical understanding and personal fit needed to excel in their position.

Responsibilities

- Process deliverables such as:
 - BFDs (Block Flow Diagram), Process Models, Heat and Material Balances, and PFDs (Process Flow Diagram).
- Improve CE technology through identification and exploitation of opportunities to reduce CO₂ capture cost and improve process efficiency either directly or through enabling improvements in the work of other engineering disciplines.
- Improve CE's simulation capabilities through optimization of existing simulations, identification of areas of improvement, and development of new simulations.
- Analyze/model various process designs to drive down the cost of the plant.
- Provide progress against milestones/deadlines to management.
- Maintain Standard Operating Procedures (SOPs) for Process Engineering.
- Support the engineering and project management teams during the Front-End Loading (FEL), Detailed Design, Construction, and Commissioning.
- Identify constraints to achieving engineering objectives or deliverable deadlines and suggest the resources required to overcome these (e.g. software, equipment, personnel).
- Identify and apply appropriate quality management tools and techniques to improve the engineering process.

Qualifications

- Education: BSc or BAsC in Chemical Engineering.
- Experience: 10+ years of simulation/modelling experience.
- Excellent written and verbal communication skills.
- Interpret PFDs, P&IDs, Mass Balances, Datasheets, etc.
- “Swiss-army knife” capabilities.
- Collaborate well in a team environment.
- Desire to learn.
- Thrive on doing things that have not been done before (explorer mindset) and tackling challenging problems.

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