

## Senior Process Engineer/Chemist – Fuel Synthesis

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

This is a senior technical role for a Petroleum or Chemical Engineer or Chemist who understands petrochemical processes, operations, equipment, and laboratory analytics. The ideal candidate will have experience developing, implementing and optimizing industrial process plants with a focus on producing and characterizing synthetic crude.

- Reports to the Manager, Fuel Synthesis Operations.
- Drive process characterization and data analysis.
- Analysis and optimization of pilot unit operations to increase overall plant performance.
- Identification and improvement of process KPIs.
- Mentor junior process engineers, technicians and operators.

### Responsibilities

- Identify process and equipment characterization opportunities the following process groups; syngas production from CO<sub>2</sub>, electrolysis for hydrogen production and liquid fuel synthesis.
- Mentor junior process engineers, technicians and operators in process optimization and characterisation, experiment design, plant performance improvement and data analysis.
- Design and execute test campaigns to quantify and deliver equipment and process enhancements.
- Guide junior engineers and operators in the development and QC of test plans as well as protocols for test campaigns.
- Analyze test data, develop and communicate recommendations to the plant design team. Research process equipment alternatives as needed. Liaise with vendors and arrange on-site pilot testing.
- Identify 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.
- Maintain and update Standard Operating Procedures (SOPs) and develop future plant operating philosophies.
- Collaborate with CE's engineering team to define future plant control narratives and philosophies based on pilot plant operating experience.

### **Qualifications and Experience:**

- Education: PhD/MSc Chemical or Petroleum Engineering or Chemistry specialization.
- Experience: 8+ years of experience developing, refining and optimizing petrochemical processes in the oil and gas industry.
- Specific plant operations experience in production or refining of crude or synthetic crude.
- Background in petrochemical facility design and development is highly desirable.
- Hands on operational experience with petrochemical process and equipment.
- Lab experience as it relates to process control and monitoring an asset.
- Experience and comfort working in a fast-paced R&D environment.

In addition to technical skills, the right fit will:

- Be a self-starter with the ability to work towards multiple deadlines with limited supervision in a fast-paced environment.
- Thrive on doing things that have not been done before (explorer mindset).
- Strong analytical, technical writing and problem-solving 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 – Fuel Synthesis” in the subject line.