

Position: Senior Process Engineer
Location: Vancouver, Canada or Birmingham, UK

Nexterra Systems Corp. is a leading provider of plant-scale, energy from renewable waste systems for industrial, institutional and commercial heat and power markets. Our corporate mission is to make the world cleaner and more sustainable by creating valuable energy and chemicals from local, renewable waste. The result: better air quality, fewer harmful emissions, dramatically lower energy costs.

If you are looking to have an impact on the world and change the future, come join a growing, vibrant company with top-notch leadership that values innovation and its people.

As a Senior Process Engineer you will play a key role with direct impact on the success of this rapidly growing clean technology company. Reporting to the Senior Vice President of Engineering in Vancouver, you will lead all process designs, preparation of process design documentation, including the creation of P&ID's, mass balances, equipment sizing, and control strategies.

Design and Documentation

- Develop and maintain Mass and Energy Balance calculations for wood gasification and combustion systems, superheated steam generation and steam turbine power generation systems
- Complete calculations for sizing heat recovery units, radiation losses, chemical processes like desulfurization and deNOx
- Size the heat recovery units, superheaters, evaporators, economizers, condensers, heat exchangers, fans, pumps, burners, valves and dampers
- Assist Designers with generating P&ID drawings and provide technical support for the Projects teams (mechanical, electrical and controls)
- Participate in product development process design
- Write, review and edit technical documentation including technical papers, design reports and proposals

Equipment Specifications and Quality

- Generate equipment performance specifications
- Prepare equipment and process description, specification and functional descriptions
- Generate equipment list, line list and valve list
- Ensure technical quality of the design and its compliance with company standards
- Manage and improve process engineering systems and protocol

Commissioning/Start Up & Customer Support

- Participate in System start up, tune up and performance verification
- Analyze and solve complex technical problems and develop creative solutions
- Provide on-site process support during commissioning and start-up of operations, including process analysis and troubleshooting
- Build effective relationships within the company, and with customers and suppliers

Skills & Experience

- Degree/Masters in Mechanical, Chemical or Process Engineering
- Registered Professional Engineer in BC, or Chartered Engineer in the UK
- 20+ years of experience across all stages of plant design, from process engineering, to P&ID generation and review, equipment selection, commissioning, and start-up
- Experience with Solid Fuel gasification and combustion, boilers and process heaters
- Experience with Process Equipment for high temperature applications like burners, heat exchangers, thermal process vessels
- Experience with gas purification, fluids transfer and gas treatment systems
- Hands on experience with instrumentation, electrical and controls design
- Familiar with either North American or EU standards for boilers, pressure vessels, pressure piping, ATEX and NFPA regulations
- Familiar with CE certification, KKS numbering system, HAZOP studies

Attributes

- Detail oriented and analytical individual who believes in a culture of accuracy and quality
- Excellent interpersonal skills with demonstrated leadership and team building skills
- Proven experience creating efficiencies and contributing to a continuous improvement climate
- Highly organized with an ability to prioritize in order to meet deadlines
- Knowledge of safety, environmental and quality standards
- Analytical troubleshooter with the ability to anticipate problems
- Desire to work with other incredibly bright people in a deadline driven, fast-paced environment
- This position will be based in either Birmingham, UK or Vancouver, Canada. You must have the ability to travel and work between both locations.

Current Project

Nexterra's current project is in Birmingham, UK - supplying a biomass gasification system for the Birmingham Bio Power Ltd. (BBPL) renewable energy power plant in Tyseley, UK. Nexterra's gasification system is a cornerstone of the £47.8 million project that will use 67,000 tonnes/year of locally-sourced class A – C recovered wood diverted from landfills to produce steam that will be converted into electricity through a steam turbine and generator system. The plant will supply enough electricity to power 17,000 homes and is expected to reduce greenhouse gas emissions (CO₂e) by 107,000 tonnes per annum.

Interested in learning more about the role and the team? We'd love to hear from you! Please forward your resume to: careers@nexterra.ca