



**Position:** Senior Mechanical Engineer

**Location:** Danbury, CT

We are currently seeking a highly motivated and experienced Senior Mechanical Engineer to join the multi-disciplinary Advanced Technology team responsible for designing advanced fuel cell-based systems for both power generation and carbon capture applications. The Senior Mechanical Engineer will be responsible for designing and developing a broad range of process equipment for fuel cell and fuel cell based carbon capture systems. Additionally, the Senior Mechanical Engineer will be expected to work with suppliers to ensure on-time delivery of equipment. This position requires flexibility to work on multiple projects in various stages of the design or validation process.

**Responsibilities:**

- Specifies process equipment for advanced fuel cell systems in compliance with international codes and standards, project specifications, and general specifications prevalent in gas applications. Equipment includes: rotating equipment (pumps, blowers, compressors, turbo-expanders), heat exchangers, process vessels, fuel processing system components, reactors, water treatment systems, etc.
- Works with suppliers to select, develop, and qualify equipment designs for fuel cell balance-of-plant systems. Creates and manages the equipment lists for these systems.
- Develops the design of custom process equipment utilizing 3-D computer aided design (CAD) software, and analyzes designs utilizing a combination of engineering calculations, computer-aided engineering tools such as FEA simulations, and/or analyses of testing data.
- Identifies and incorporates cost-reduction fabrication processes into equipment design for a range of material types including high temperature metal alloys, ceramics, and insulation materials.
- Manages equipment fabrication and delivery process to ensure delivery of high-quality equipment in accordance with the project schedule. This includes periodically visiting vendor's production facilities to inspect product workmanship and witness equipment performance or other acceptance tests.
- Reviews engineering design documentation including P&ID's, mechanical fabrication and assembly drawings, PFD's, vendor supplied specifications, and plant site layouts.
- Ensures that systems are developed in accordance with best safety practices. This includes participating in Hazard and Operability Analysis (HAZOP) reviews.
- Supports system fabrication, installation, and commissioning activities when needed to ensure proper system operation.
- Prepares technical reports and presentations to communicate designs/results to internal and external stakeholders, and assists with writing project proposals.
- Occasionally delivers formal presentations at industry conferences or technical meetings.
- Performs other tasks and projects as required.
- Domestic and International Travel Required: 5 - 15%

## **Qualifications:**

**Education:** B.S. or M.S. in Mechanical Engineering or related field required.

**Experience:** Requires a minimum of 5 years of relevant work experience.

## **Required Experience and Characteristics:**

- Strong experience in the specification, selection, operation, troubleshooting and maintenance of process equipment as listed above.
- Highly knowledgeable of equipment fabrication processes (e.g. - brazing and welding), structural analysis practices, and placement of critical instrumentation and expansion joints.
- Experience designing and developing custom equipment with use of a wide range of materials such as metal alloys, ceramics, and insulations for high temperature and cryogenic applications.
- Experience managing vendor equipment procurement to meet project schedule timelines.
- Ability to read and review P&ID's, PFD's, site layouts, and fabrication drawings.
- Experience with line sizing and selection of insulation for pipe layouts and equipment related ducting.
- Designs utilizing a combination of engineering calculations, FEA simulations, analyzing testing data, and interfacing with vendors to identify cost-reduction fabrication methods.
- 3-D CAD modeling skills with Solidworks, Autocad Inventor, or similar programs desired.
- Experience with Computer Aided Engineering (CAE) FEA tools is desired.
- Experience in reviewing process equipment vendor quality procedures/programs.
- Knowledge of major industry Codes and Standards (e.g., ASME Boiler and Pressure Vessel, Piping Codes, etc.).
- Strong understanding of mechanical design fundamentals, fluid and mass transport phenomena, and thermodynamics.
- Excellent oral and written communication skills to work effectively and openly with others, both internally and externally. Proficient in the use of Microsoft Office
- Good presentation skills to effectively communicate ideas and scientific findings.
- Team player who works willingly with others and keeps a positive, goal-focused outlook when tackling challenging, time-sensitive engineering problems.
- Flexible and adaptable to rapidly shift gears into multi-disciplinary roles based on current project requirements.
- Ability to obtain/maintain a valid passport and travel internationally without restrictions is required.

## **Working Environment/Physical Requirements:**

- Desk work using a computer.
- This position is located indoors and requires the ability to move between separated rooms within the same building.
- Occasional travel via car and/or commercial airlines.
- Occasional work outdoors in a power plant environment during commissioning activities.

## **How to Apply:**

Submit a copy of your resume, along with the voluntary self-identification forms, to **jobs@fce.com**. Please reference the Position (Job Title) in the subject header of your email.

Please note only those authorized to work in the United States will be considered.

*No agency submissions, please. Resumes submitted to any FuelCell Energy employee without a current, signed and valid contract in place with the FuelCell Energy Recruiting team for this position will become the property of FuelCell Energy and no agency fees will be paid.*

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### **Equal Opportunity Employer - Vet/Disability**

We offer a competitive compensation package as well as comprehensive benefits including medical, dental, vision, company-paid life/disability insurance, 401(k) plan, employee stock purchase plan and generous paid leave.

Employment with FCE is subject to pre-employment drug-screen and background investigation.

FuelCell Energy, Inc. is committed to ensuring that its application process provides an equal employment opportunity to all U.S. job seekers, including individuals with disabilities. If you believe you need a reasonable accommodation in order to search for a job opening or to submit an application, please send an email with your resume to [jobs@fce.com](mailto:jobs@fce.com) indicating the specifics of the assistance needed.

You may also use **203-205-2070**, a phone line designed **exclusively** to assist disabled job seekers whose disability prevents them from being able to apply online. Only messages left for this purpose will be acknowledged. A response to your request may take up to two business days.