

**Job Title:** Sr Mechanical Systems Engineer  
**Location:** Wallingford, CT

Hydrogen... the most abundant element in the universe is your ticket to a rewarding future. Every day there are reports of how hydrogen (produced by water electrolysis and renewable energy sources) is displacing fossil fuels, reducing greenhouse gasses, and helping to revitalize our planet.

Nel Hydrogen is the global leader in on-site hydrogen generation and the largest electrolyser manufacturer in the world. Armed with a full portfolio of water electrolysers and hydrogen fueling station technologies, Nel Hydrogen is leading the charge into the new green hydrogen economy.

If you are driven by personal initiative combined with loyalty and commitment to your team and the ability to convert complex issues into simple solutions, then we want to talk to you. Help make the world a better place. Join a company that is on the cutting edge of new energy innovations, with an energized, progressive culture.

#### **Nel Hydrogen**

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### **POSITION SUMMARY**

A key contributor in the Megawatt (MW) Scale Product team that helps design and monitor core products. This position requires a Mechanical Systems Engineer to apply knowledge of vessel, plumbing, liquid and gas flow-system, HVAC and cooling system design and of mass and thermal balance physics in engineered systems.

### **RESPONSIBILITIES**

#### **Product Development**

- Detailed System Performance Modeling/Analysis (flow, temperature, pressure, etc.)
- Applies knowledge of engineering principles to design and/or specify mechanical components for hydrogen generator products, specifically considering design for manufacture / design to cost
- Mechanical and automatic control specifications to meet operational performance requirements
- Define specifications for ancillary equipment to support core technology; specifically water purification, instrument air, thermal control systems, chillers and HVAC
- Develop operational specifications for both direct pipeline, compression and storage applications
- Top level engineering document development (P&ID, PFD, System requirements, System compliance verification, etc.)
- Manage customization requests to standard products, including documentation release
- Prototype Test Definition, Build & Test Support
- Evaluate overall mechanical system safety design per US and international codes and standards
- Support system and customer HAZOP activities

#### **Product support**

- Support Serial Production Unit builds
- Escalation point for Field Issues
- Detailed Root Cause Analysis including test protocol development and issue resolution implementation
- Implement product changes and retrofits based on field feedback

Special projects as required.

## QUALIFICATIONS

Education:

Bachelor's degree in Mechanical Engineering or related field

Required Skills and Abilities:

- 7 to 10 years of industry related experience (Hydrogen systems (preferred), chemical processing, gas and liquid delivery, cooling and chilling, or water purification systems).
- Commercial products or plant design experience preferred.
- Expert on complex systems, preferably having an intimate knowledge of gas and liquid plumbing, cooling and HVAC system design and of mass and thermal balance physics in engineered systems:
- Demonstration of experience in selecting and sizing: heat exchangers, pumps, fittings, pressure vessels, fans, controls, 3-phase electricity, drives and understand the governing design codes and standards for those devices.
- Demonstration of experience simplifying designs, reducing costs and increasing the value of engineered systems.
- Understanding of sub-system operational characteristics and potential interactions that influence overall product/system performance.
- Experience with FMEA and reliability analyses techniques
- Motivated self-starter with high level of initiative and creative approach to problem solving.
- Ability to manage subsystem developments, including defining requirements and milestones and executing independently.
- Capable of working well in a multi-disciplinary team environment
- Experience working with electromechanical devices is a plus
- Strong working knowledge of Microsoft Office; familiarity with ERP is a plus
- Limited travel could be required to vendor or customer sites

Competencies:

- Attention to Detail/Accuracy
- Problem Solving Skills
- Communication; verbally and written
- Time Management; priority goals
- Consultation
- Organization and planning
- Multi-taking
- Collaboration
- Ethical Practice

The above statements reflect the principal functions of the position and shall not be construed as a detailed description of all work requirements that may be inherent in the job.

Nel Hydrogen provides comprehensive health and insurance benefits for its employees as well as a stock option plan. The Company offers competitive paid vacation time, sick leave, and holidays.

The Company has a published Code of Conduct that all employees are expected to follow.

#### Visas

- Nel will only employ those who are legally authorized to work in the United States. This is not a position for which sponsorship will be provided.
- Individuals with temporary visas such as E, F-1, H-1, H-2, L, B, J, or TN or who need sponsorship for work authorization now or in the future, are not eligible for hire.

We are an equal opportunity employer We are an equal opportunity employer-M/F/Disabled/Veteran and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law. All employment is decided based on qualifications, merit, and business need.

To apply, please e-mail your cover letter and resumé to: [nelctcareers@nelhydrogen.com](mailto:nelctcareers@nelhydrogen.com).