



## **MECHANICAL ENGINEER**

(4/2022)

NuSource LLC, headquartered in Alexandria, VA, is a joint venture between MPR Associates, Inc. and Gavial Holdings, Inc., and is an ASME N-Certificate holder. The company was developed to provide custom integrated engineering and manufacturing solutions to the commercial nuclear industry. We specialize in difficult-to-solve replacement solutions that are critical to plant operation and regulatory compliance. NuSource combines the resources of MPR Associates and Gavial Holdings to deliver more than 50 years of engineering experience and 35 years of manufacturing of solutions under the Nuclear Requirements of 10CFR50 Appendix B.

If you are seeking a unique, challenging, and rewarding career opportunity, NuSource is the right company for you. NuSource solves challenging problems for clients in the fields of power and energy, and federal services. Successful candidates see value in performing challenging technical work and have a desire for continuous learning including topics beyond mechanical engineering.

NuSource seeks individuals with an interest in expanding their technical, leadership, and business capabilities. Expected career progression includes developing technical expertise, expanding leadership skills (e.g. project management, administrative supervision, and mentoring) and developing stronger business acumen (e.g., client relationships, and business development).

### **General Job Description**

Typical project assignments in this role will include the design, analysis, and/or evaluation of mechanical components within nuclear power facilities while providing engineering support and oversight to NuSource's fabrication and testing sub vendors. Due to NuSource's breadth of opportunities, the type and scope of engineering projects is always evolving. This is a full-time, exempt position located at NuSource's offices in Alexandria, VA with remote and hybrid arrangements being considered.

Responsibilities include:

- Planning and leading the mechanical design/analysis efforts of component designs, including coaching and mentoring other engineers through execution of the work.
- Providing technical oversight to the NuSource team as well as analysis, manufacturing and original equipment manufacturer sub-vendors.
- Developing design/analytical solutions for a range of technical challenges across various projects including, for example:
  - Pressure Vessel Design (vessels, heat exchangers, valves, etc.)
  - Design Code Analyses (stress analyses, design reports, code compliance and acceptability, etc.)
  - Seismic Analyses (stress analyses, Finite Element Analyses, etc. ).
- Creating design files such as 3D CAD models and 2D fabrication drawings.
- Performing technical reviews of internal and external designs or analyses.
- Resolving technical issues identified during fabrication.
- Developing commercial grade dedication plans.
- Providing technical oversight of fabrication.
- Communicating results internally and externally.



## **Education**

- BS or MS/ME in Mechanical Engineering (or similar discipline) required.

## **Technical Skills and Experience**

- 5-7 years' work experience in the field of mechanical component design, preferably with nuclear power experience and a diverse skillset (pressure vessel, structural, materials, etc.).
- Experience working to mechanical codes and standards such as the American Society of Mechanical Engineers Boiler and Pressure Vessel Code.
- Experience using solid modeling, analysis, and evaluation of structural/component designs.
- Experience developing technical solutions based on analysis or testing. Experience with mechanical part inspection and measurement tools and techniques.
- Experience with modeling software such as Solidworks and Finite Element Analysis (FEA) software such as ANSYS.
- Experience successfully working in a collaborative integrated design team is essential.
- Experience designing, maintaining, or operating the mechanical components in power plant systems.
- Strong analytical skills with fundamental understanding of the underlying first principles of engineering.

## **Skills - Personal**

- Excellent verbal and written communication skills with the ability to communicate effectively with clients, project team members, and senior management.
- Ability to multi-task across teams of engineers and project managers on various projects.
- Ability to oversee work efforts of and provide mentoring to junior engineers.
- Motivated to tackle new problems and take on new responsibilities.
- Ability to accept and grow from constructive feedback.
- Solid time management and organization skills.
- Persistent, questioning attitude and the ability to accept that in others.

## **Travel**

As required by project assignments and opportunities. Estimated to be 20%.

To be considered for this position, please apply at <https://nusourcellcareers-mpr.icims.com/jobs/1299/mechanical-engineer/job>

NuSource LLC, Inc. is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, national origin, sex, religion, age, disability, veteran's status, sexual orientation, gender identity, genetic information or any other classification as required by applicable law.