Mechanical Engineer – Downhole Tool Design

Location       Houston, TX
Salary/Pay Rate Competitive
Employment Type Full Time

JOB DESCRIPTION:

CNPC USA is actively seeking creative, innovative, best-in-class experts to join our growing team. This is a unique opportunity for an experienced Mechanical Engineer to get in on the ground floor of a new enterprise backed by CNPC. The Mechanical Engineer – Downhole Tool Design performs conceptual and detailed design, analysis and validation testing on new fracturing tools and completion systems. Periodic international travel will be a requirement of this role.

COMPANY PROFILE:

CNPC USA is a subsidiary of China National Petroleum Company, and serves as the North American headquarters. Our goal is to provide innovation and research and development of new technologies for Oil and Gas Exploration and Production.

COMPANY CULTURE:

- Cooperative and innovative work environment
- Fast paced and team oriented
- High value placed on creativity, work ethic, and integrity

WHAT CNPC USA OFFERS YOU:

- A great opportunity to be part of a strong, well established, integrated international energy company
- A chance to work within CNPC’s newest, most innovative organization
- The ability to work with best in class professionals on cutting edge technology
- 100% employer paid benefits for you and your eligible dependents

THE ROLE YOU WILL PLAY:

- Support the development of cutting edge downhole tools, processes, and completion equipment
- Contribute to the completion of new product development according to time, financial, and technical metrics established through project expertise and management
• Perform engineering calculations and thorough analysis of components and systems according to recognized engineering standards
• Guide designers to generate CAD models of new designs for technical and manufacturing reviews
• Conduct peer reviews of colleagues’ work and take an active role in the design review process for multiple projects
• Interface with machine shops and monitor manufacturing of prototypes
• Develop and execute test plans for design validation and qualification
• Investigate root cause analysis of issues associated with new and existing products
• Generate downhole tool documentation for new products including operating manuals, fishing drawings, and other project documentation
• Provide a competent level of technical communication to internal and external customers as well as worldwide field operations
• Support field implementation of new products including training of employees on new tools, processes, and procedures
• Fulfill role of ambassador for CNPC USA when meeting with customers and when working in the field
• Offer continual development of understanding of the Oil and Gas Industry through field experience, familiarization with technical manuals, and attending technical meetings
• Work effectively on multiple projects

DESIRED SKILLS AND EXPERIENCE:

• BS degree in engineering / applied science from an accredited university
• Graduate Level Mechanical Engineering degree preferred
• Minimum 3 years of design experience relevant to downhole tools or completion equipment
• Experience with oilfield service operations, preferably coil tubing and hydraulic fracturing techniques
• Familiar with Oil and Gas field operations and broad knowledge of relevant products, materials, processes, procedures related to oilfield industry practices
• Experience demonstrating ability to conduct independent work with the proper application of engineering principles in problem solving
• Capable of “hands on” work in a shop setting, in a safe manner
• Creative individual with demonstrated ability to invent and patent new technologies preferred
• Ability to work well as part of a design team, and able to work independently when required
• Able to travel to remote field locations locally and internationally
• Experience with SolidWorks or Pro-E preferred
• Ansys or Abaqus FEA experience a plus
• Effective communication skills
• Must be eligible to work in the US