Job Description

Manufacturing Process Engineer
Houston Power Section Facility (Breen Rd)

About NOV Wellbore Technologies
The Downhole business unit operates within the Wellbore Technologies segment of NOV. We’re the world’s largest independent supplier for drilling and intervention operations. With supply and service centers around the globe, we can provide a complete suite of tools and support anywhere needed.

Our Houston Power Section Facility manufactures the full range of power section products for drilling activities in the Western Hemisphere. These products are sold as new, relined, or rented by NOV as part of complete drilling motor assemblies, and operate in the most challenging conditions faced by the drilling industry.

Position Summary
We are hiring a Manufacturing Process Engineer to drive improvements of our processes and equipment, to improve Safety, Quality, Delivery and reduce Cost. You will seek to understand our production process, using systematic learning and problem-solving techniques to improve and create processes that deliver robust, consistent outcomes in terms of product yield, reliability, and speed.

Using your experience in a statistically process-controlled manufacturing environment and your analytical skills, you will have the opportunity to implement these sensors and SPC techniques in an established production line, with the goal of producing the best quality parts in competitive lead times that meet our customers’ needs.

Responsibilities

- Drive continuous improvement in manufacturing processes and shop layout to improve Safety, Quality, Delivery (throughput) and Cost
- Evaluate existing processes and potential improvements using analytical methods and root cause analysis
- Monitor machine parameters using SPC methods and address out-of-control processes to ensure consistent quality
- Prepare/update layouts, drawings, specifications, procedures, work instructions as needed to support/improve manufacturing operations
- Disposition products which receive process-related NCRs
- Research and test new processes/equipment to improve manufacturing processes
- Train team members as needed for introduction, improvement or sustaining of manufacturing procedures

Performance Objectives

Primary Objectives:
Primary objectives for all staff are to ensure customer satisfaction every day by delivering safe products that work as expected, on time to customer expectations, at a competitive cost. Primary metrics for our Manufacturing Process Engineers are: production capacity and process yield.

Secondary Objectives:
Secondary objectives will be to drive continuous improvement of these metrics by working with all departments to streamline our processes and generate more value. You will collaborate with your teammates to understand problems with our people, products, and processes and escalate as needed to achieve positive outcomes and sustainable improvements.
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Competencies

Leadership and experience:
To make a successful career in the field of manufacturing engineering, you should be adaptable to accept latest changes in the field of lean manufacturing and should remain abreast with the latest developments happening in that field. You should be extremely well organized and should have the ability to identify problems and resolve them quickly. Strong oral and written communication skills with excellent organization, planning and implementation skills would prove to be an advantage. You must be self-driven with positive attitude and should be result oriented. Excellent analytical skills combined with good negotiation and conflict management skills with proficiency in computers would be beneficial.

Continuous improvement:
You have an internal drive to always be looking for opportunities for improvement – not satisfied with the current state. In any factory, there are a wide range of problems/limitations that limit improvement in safety, quality, delivery, cost, and innovation goals. You are passionate about systematically looking for problems, defining them, identifying the root cause, and setting a plan in place to address them with countermeasures. You have experience with using Lean tools, and other continuous improvement tools. You can look at problems from various angles - strategically/tactically/technically, to identify the best overall solutions. You always seek to deeply understand why the current state exists, and look for ways to improve it.

Effective and systematic problem solving:
You can create and use multiple sources of information to identify problems, define solutions, and maintain discipline in people and processes. One of the challenges within our team is to promote an effective problem-solving culture. Your background includes experience in problem solving roles with a demonstrated track record of success. Your prior experience involves regular interaction with multiple organization functions. You are comfortable with addressing whatever problem you face next, and seek to understand the problem thoroughly before suggesting changes or taking action. Your skills are evident through past achievements in improving existing manufacturing processes along with the implementation of new methods and systems with measurable results. You recognize there are many ways to solve problems, and you address well-defined and poorly-defined problems by selecting the appropriate problem solving method. You demonstrate fact-based decision making, and expect the same from your peers. This is coupled with great interpersonal skills and the ability to learn and apply new knowledge in resolving problems.

Respect for each other and our customers:
You understand that people, processes, and products are deeply intertwined, and you understand the importance of all three. You value knowledge sharing, communicating and problem solving using A3’s and/or 8D’s (and you don’t have a tolerance for assumptions, guesses, etc.) You can learn and apply structured conflict resolution methods to maintain positive progress when roadblocks develop. You willingly take responsibility for your role in generating an engaged, passionate, and communicative team environment. You understand the value of cross training and continuous skill development, and you take an active role in your personal development. You understand that our purpose in manufacturing is to serve our customers with respect and mutual understanding of others is core to your beliefs, demonstrated by your listening skills and curiosity. You are active, energetic, and can instill that energy in others. You successfully balance patience while understanding a problem or process while maintaining a sense of urgency. You enjoy learning, and believe continuous learning is an essential part of what fulfills you. You are accomplishment-oriented and gain satisfaction from learning by doing.

Requirements

- Bachelor's Degree in Mechanical, Electrical, Industrial, or Process Engineering, or a related field.
- Over 2 years of experience with Statistical Process Control systems in a manufacturing environment, and the ability to use statistical methods to drive process improvement (preferred).
- Over 3 years of experience in Manufacturing Engineering or related field (preferred).
- Experience with rubber injection (preferred).
- Experience with disciplined experimentation and root cause analysis – e.g. DOE, A3, 8D (preferred)
- Experience with using Lean tools and other continuous improvement tools: Pull flow, one-piece flow, kaizen, takt time, load leveling (heijunka), pull systems (kanban), setup reduction, value stream mapping, visual factory; (preferred).
- Aptitude and passion for analysis and technical problem solving.
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- A personal drive for continuous improvement and the ability to motivate improvement in others
- Effective oral and written communication skills
- Proficiency in SolidWorks or other CAD software (preferred)
- Proficiency in Microsoft Office applications