

# Request to Fill Position



P.O. Box 4078 Butte, MT 59702 (406) 494-7100

Requesting Organization DOE Programs	No. 887
Position Requested Senior I&C Systems Engineer	Date Posted 02/23/2010
Type of Position <input checked="" type="checkbox"/> Full Time <input checked="" type="checkbox"/> Regular <input checked="" type="checkbox"/> Exempt <input checked="" type="checkbox"/> Direct <input type="checkbox"/> Union <input type="checkbox"/> Replacement <input type="checkbox"/> Part Time <input type="checkbox"/> Temporary <input type="checkbox"/> Nonexempt <input type="checkbox"/> Indirect <input checked="" type="checkbox"/> Nonunion <input checked="" type="checkbox"/> Newly Created Position	
Expected Work Location <u>Morgantown, West Virginia</u> Expected Work Hours Per Week <u>40+</u>	

**Summary of Position Responsibilities**

MSE Technology Applications, Inc. is a multi-disciplined company located in Butte, Montana with offices in various locations including Morgantown, West Virginia. MSE provides technical support to industry, the Department of Defense (DOD), and the Department of Energy (DOE) in addition to other private and public sector clients. We are currently seeking an individual to assume the responsibilities of Senior I&C Systems Engineer at our Morgantown Office. The selected individual will be responsible for providing technical expertise utilizing established procedures and applying fundamental concepts and practices through the knowledge of engineering and scientific principles of electrical engineering and instrumentation & control (I&C) systems engineering; supporting the technical needs and operational aspects of various on and off-site projects; and developing detailed engineering design packages that conform to facility and nationally/internationally recognized engineering standards (i.e., IEEE, NEC, NEMA, ANSI, and ISA). Must be willing to travel up to 30% of time to locations including, but not limited to, Pennsylvania, Oregon, and Montana to complete customer requirements.

(See Page 2)

**Education, Experience, and Skill Requirements**

B.S. in Electrical Engineering, Electronic Engineering, General Engineering (Systems Control Option), or directly related field with 8-10 years directly related experience required. Four years applied controls engineering experience in the areas of electrical equipment installation, construction oversight and/or field troubleshooting, and facility design/operations desirable. The individual is expected to possess a senior-level knowledge base of the fundamental concepts, principals, practices, and procedures of the instrumentation & control engineering field in order to complete technical assignments. PE, preferably in West Virginia and/or Pennsylvania, required. Must be willing to attain NCEES Certification.

The individual must be capable of conducting engineering tasks independently and as a team member and must be willing to work under the direct supervision and guidance of a lead person and/or more senior-level engineering personnel. Must be computer literate (MSW, Excel, Powerpoint, AutoCad/Inventor Series as a minimum) and must have good interpersonal and communication skills (written and oral) to effectively function as a team member on assigned projects.

(See Page 2)

Wage/Salary Classification: Senior Engineer/Scientist

Wage/Salary Range	Minimum \$55,000	Midpoint \$80,000	Maximum \$105,000
Lead/Manager	Date		
Senior Manager	Date		
COO/President	Date		
Human Resources	Date		
Person Hired			

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## **Summary of Position Responsibilities: (cont'd)**

- Generate I&C engineering work packages, specifications, drawings, and manuals to provide direction during the fabrication and/or installation of new systems or the modification of existing systems.
- Provide technical support during the implementation of design packages to ensure any required field changes are completed in a timely manner and achieve the desired result.
- Review and perform field inspection of installed components for construction, facility upgrades, system modifications, and process changes.
- Prepare technical specifications and drawing packages for on and off-site construction projects or for purchasing equipment.
- Provide basic designs for new systems or modifications using standard analytical techniques.
- Provide assistance in design reviews, particularly as related to customer requirements.
- Respond to trouble calls on an on-call basis.
- Perform routine preventive maintenance tasks on company equipment installed on customer property.
- Provide technical direction to resolve system problems, correct deficiencies, or to improve operational aspects of processes or facility systems.
- Utilize facility standards as well as recognized industry standards and codes to maintain compliance with health, safety, quality, and function ability requirements.
- Complete appropriate documentation for purchasing materials, equipment, and components to support facility maintenance, upgrades, system modifications, and new designs.
- Compile, develop, review, and/or modify operation and maintenance manuals for systems and equipment.
- Develop and submit detailed and accurate project cost estimates for the installation of new systems, facility upgrades, or technology development projects using standard take-off sheets.
- Travel as required in support of project needs.
- Perform marketing and business development.
- Perform other related duties as assigned.

## **Education, Experience, and Skill Requirements (cont'd):**

In addition, the following knowledge, experience, and skills are required/highly desirable:

- Knowledge in the areas of instrument control loops, Programmable Logic Control (PLC) programming, and Human Machine Interface (HMI) programming.
- Knowledge of electrical systems, chemistry, process design, system controls, and computer sciences.
- Familiarity with the applied concepts for systems controls requiring pressure, temperature, and flow sensors as well as a general understanding of the applications of pressure relief devices.
- Knowledge and ability to analyze electrical and mechanical processes and the ability to implement engineering designs applicable to technology application projects.
- Knowledge of preventive maintenance systems and procedures.
- Knowledge of the application of codes and standards to designs and installations.
- Proven background in the development of engineering cost estimates.
- Ability to transfer ideas and designs to paper in the form of drawings, sketches, and instructions.
- Knowledge in basic drafting procedures and methods, and familiarity with AutoCAD and/or other drafting program operations.
- Ability to work effectively with common word processing, spreadsheet, database, and engineering software programs.

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## ACTIVITY CHECKLIST

Check those activities **REQUIRED** by the position and send to the HR Office.

Activities Required	O	F	C	Remarks:
Reading		X		
Good Color/Depth Perception		X		
Good Eye/Hand Coordination and Hand Dexterity	X			
Telephone Operation		X		
Travel (all means of transportation)	X			
Working Alone		X		
Working Rotating Shifts	X			
Working Outdoors with Extensive Exposure to: <input type="checkbox"/> Sunlight <input type="checkbox"/> Heat <input type="checkbox"/> Cold (√ those that apply)	X			
Sitting		X		
Standing	X			
Pushing/Pulling				
Stair/Ladder Negotiation	X			
Kneeling	X			
Squatting	X			
Crawling	X			
Walking	X			
Bending	X			
Twisting/Turning				
Climbing	X			
Reaching Horizontal	X			
Reaching Overhead	X			
Wrist Turning	X			
Grasping	X			
Pinching				
Finger Manipulation/Typing/Mousing		X		
Carrying	X			
Lifting: Floor-to-Waist	X			
Lifting: Waist-to-Shoulder				
Lifting: Shoulder-to-Overhead				
Lifting: 0 to 20 lbs				
Lifting: 21 to 30 lbs	X			
Lifting: 31 to 40 lbs				
Lifting: 41 to 50 lbs				
Operating Motorized Vehicles (cars, trucks, forklifts, loaders, etc.)				
Confined space entry				
Potential exposure to bloodborne pathogens				
Health and Physical Hazards: Potential Personal Protective Equipment (PPE) Use May be Required (hearing, respiratory, eyewear, footwear, etc.)	X			
Other (add description on a separate sheet)				

**Legend:**

O = (Occasional): 11%-33% or 1-32 reps/day  
 F = (Frequent): 34%-66% or 33-200 reps/day  
 C = (Continuous): 67%-100% or >200 reps/day