

# Request to Fill Position



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

Requesting Organization <b>Engineering (Mechanical)</b>		No. 915	
Position Requested <b>Mechanical Engineer</b>		Date Posted	
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		Expected Work Hours Per Week	
Butte, Montana		40+	
Summary of Position Responsibilities  Provide technical expertise utilizing established engineering procedures and applying fundamental concepts and practices through the knowledge of the scientific principles of mechanical engineering. Support the technical needs and operational aspects of various on (MMATC) and off-site projects. Develop detailed engineering design packages conforming to facility and nationally and internationally recognized engineering standards (ASME, ANSI, IBC, as examples).  (See Page 2)			
Education, Experience, and Skill Requirements  B.S. in mechanical engineering, general engineering with mechanical option, or directly related field required. Individuals are expected to possess knowledge of the fundamental concepts, principals, practices, and procedures of the mechanical engineering field, specifically, mechanical equipment design installation including pump sizing; heating, ventilation, & air conditioning; process piping design and layout; construction oversight and/or field troubleshooting; and facility design/operations. Working knowledge and experience with ANSYS and MatLab software required, advanced capability desirable. Must be computer literate with MSW, Powerpoint, Excel, AutoCad, and others as identified, and must be willing to learn additional software programs.  Must bring willingness and enthusiasm to learn and advance in all technical areas listed in this posting, as a minimum. Will work under the direct supervision and guidance of a lead person and/or more senior-level engineering personnel; however, must be capable of conducting engineering tasks independently and as a team member. 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 <b>Engineer/Scientist</b>			
Wage/Salary Range	Minimum \$44,000.00	Midpoint \$64,000.00	Maximum \$84,000.00
Lead/Manager	Date		
Senior Manager	Date		
COO/President	Date		
HR Director	Date		
Person Hired			



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

- Generate engineering work packages, test plans, 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, including any required testing 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. Generate deficiency (“punch”) lists.
- Prepare technical specifications and drawing packages for on and off-site construction projects.
- Provide basic designs for new systems or modifications using standard analytical techniques.
- Provide technical direction to resolve system problems, correct deficiencies, or to improve operational aspects of processes or facility systems.
- Utilize (MMATC) facility standards as well as recognized industry standards and codes to maintain compliance with health, safety, quality, and functionality requirements.
- Complete appropriate documentation, including procurement specifications 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 takeoff sheets.
- Travel as required in support of projects needs.
- Perform marketing and business development.
- Perform other duties as assigned.

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

In addition, the successful candidate must have knowledge, or the willingness to learn, in the following areas:

- Strengths, fluid flow, power development and conversion, thermodynamics, combustion, nuclear sciences, construction, refrigeration, and cryogenics.
- Design and fabrication procedures/methods (mechanical, civil, structural, and process piping).
- Basic knowledge of electrical systems, chemistry, process design, system controls, computer sciences, water treatment, surveying, and geophysics.
- Basic knowledge of Finite Elemental Analysis and Solidworks modeling software.
- Ability to analyze civil, environmental, and mechanical processes and design practices applicable to technology application projects.
- Process piping, pumping, and mechanical systems components.
- Preventive maintenance of systems.
- Application of codes and standards to designs and installations.
- Transfer of ideas and designs to paper in the form of drawings, sketches, and instructions.
- Basic drafting procedures and methods, and familiarity with AutoCAD and/or other drafting program operations.
- General laboratory equipment and tools.
- Marketing and business development.

## **Licensing**

Status of Engineer in Training State of Montana Licensing (or other state) desirable. Must agree to take the State of Montana Professional Engineer’s License (PE) test upon completion of the required four years of engineering work experience. Must be willing to eventually register with the National Council of Examiners for Engineering and Surveying (NCEES).