

MIDWEST SERVICE CENTER L.L.C.
Salary Job Description

Position Title:	Mechanical Engineer	Department:	Mechanical
Reports To:	Senior Plant Engineer	FLSA Status:	Salary/Non-Exempt
Date Created:	09/04/08	Labor Grade:	N/A
Revision Number:	0	Revision Date:	09/04/08

A. PURPOSE OF POSITION

Perform engineering duties in planning and designing tools, engines, machines and other mechanically functioning equipment. Oversees installations, operation, maintenance and repair of equipment.

B. DUTIES AND RESPONSIBILITIES

1. Assist shop supervisors with resolution of technical questions.
2. Contact customer's engineering to resolve technical questions regarding equipment repair and/or manufacturing.
3. Perform visual inspection of customer mechanical equipment to develop recommended repair scope.
4. Draft job reports for repaired steam turbine products.
5. Identify and/or procure special tooling.
6. Perform internal audits as required by the quality assurance representative.
7. Develop or assist with preparation of job travelers and/or review job travelers when appropriate.
8. Identify drawings for jobs when appropriate.
9. Distribute and control specific process instructions for steam turbine jobs.
10. Issue documentation to incorporate changed customer requirements into work scope.
11. Monitor jobs and documentation for accuracy and completeness.
12. Identify acceptable material to repair customer products when appropriate.

Midwest Service Center L.L.C. Salary Job Description

Position Title: Mechanical Engineer

Page 2 of 5

13. Specify the requirements for identification and traceability of material and parts when appropriate.
14. Specify requirements for special processes such as blading, heat treating, NDE, welding, inspection and testing when appropriate.
15. Check that examination and testing are performed by qualified personnel and that the results are documented.
16. Identify requirements for inspection and testing and check that their status is maintained throughout all work activities when appropriate.
17. Designs products and systems to meet process requirements, applying knowledge of engineering principles.
18. Oversees installations to ensure machines and equipment are installed and functioning according to specifications.
19. Coordinates building, fabrication and installation of product design and operation, maintenance and repair activities to utilize machines and equipment.
20. Specifies system components or directs modifications of products to ensure conformance with engineering design and performance specifications.
21. Investigates equipment failures and difficulties, diagnoses faulty operation and makes recommendations to maintenance crew.
22. Researches and analyzes data, such as customer design proposal, specifications, and manuals to determine feasibility of design or application.
23. Plans fabrication of test control apparatus and equipment and develops procedures for testing products.
24. Confers with establishment personnel and engineers to implement operating procedures and resolve system malfunctions and to provide technical information.
25. Develops models of alternate processing methods to test feasibility or new applications of system components and recommends implementation of procedures.
26. Test ability of machines to perform tasks.
27. Assists drafter in developing structural design of product, using drafting tools or computer assisted design/drafting equipment and software.

Midwest Service Center L.L.C. Salary Job Description

Position Title: Mechanical Engineer

Page 3 of 5

28. Conducts experiments to test and analyze existing designs and equipment to obtain data on performance of product and prepares reports.

C. TYPICAL EDUCATIONAL LEVEL

1. Bachelor's Degree
Demonstrating degreed or practical experience in all mechanical engineering disciplines:
Example, but not limited to, (materials, design, installations, operation, maintenance etc.).
2. Computer literate using facility software in addition to Windows, DOS, Word, Excel, etc.

D. KNOWLEDGE, SKILLS AND ABILITIES

1. Knowledge
 - a. Design – Knowledge of design techniques, principles, tools and instruments involved in the production and use of precision technical plans, blueprints, drawings and models.
 - b. Engineering and Technology – Knowledge of equipment, tools, mechanical devices and their uses to produce motion, light, power, technology and other applications.
 - c. Mathematics – Knowledge of numbers, their operations, and interrelationships including arithmetic, algebra, geometry, calculus, statistics and their applications.
 - d. Computers and Electronics – Knowledge of electric circuit boards, processors, chips and computer hardware and software, including applications and programming.
 - e. Physics – Knowledge and prediction of physical principles, laws and applications involving natural phenomena.
2. Skills
 - a. Mathematics – Using mathematics to solve problems.
 - b. Technology Design – Generating or adapting equipment and technology to serve user needs.
 - c. Science – Using scientific methods to solve problems.
 - d. Operations Analysis – Analyzing needs and product requirements to create a design.

Midwest Service Center L.L.C. Salary Job Description

Position Title: Mechanical Engineer

Page 4 of 5

- e. Active Learning – Working with new material or information to grasp its implications.
 - f. Critical Thinking – Using logic and analysis to identify the strengths and weaknesses of different approaches.
 - g. Problem Identification – Identifying the nature of problems.
 - h. Reading Comprehension – Understanding written sentences and paragraphs in work related documents.
3. Abilities
- a. Mathematical Reasoning – The ability to understand and organize a problem and then to select a mathematical method or formula to solve the problem.
 - b. Deductive Reasoning – The ability to apply general rules to specific problems to come up with logical answers. It involves deciding if and answer makes sense.
 - c. Written Comprehension – The ability to read and understand information and ideas presented in writing.
 - d. Number Facility – The ability to add, subtract, multiply, or divide quickly and correctly.
 - e. Near Vision – The ability to see details of objects at a close range (within a few feet of the observer).

E. GENERALIZED WORK ACTIVITIES

1. Drafting and Specifying Technical Devices, etc. – Providing documentation, detailed instructions, drawings or specifications to inform others about how devices, parts, equipment or structures are to be fabricated, constructed, assembled, modified, maintained or used.
2. Getting Information Needed to Do the Job – Observing, receiving and otherwise obtaining information from all relevant sources.
3. Analyzing Data or Information – Identifying underlying principles, reasons, or facts by breaking down information or data into separate parts.
4. Thinking Creatively- Originating, inventing, designing, or creating new applications, ideas, relationships, systems or products, including artistic contributions.

Midwest Service Center L.L.C. Salary Job Description

Position Title: Mechanical Engineer

Page 5 of 5

- 5. Inspecting Equipment, Structures, Material – Inspecting or diagnosing equipment, structures or materials to identify the causes of errors or other problems or defects.
- 6. Interacting With Computers – Controlling computer functions by using programs, setting up functions, writing software, or otherwise communicating with computer systems.
- 7. Interact with other facility Engineers on staff.

F. EXPERIENCE REQUIREMENTS

- 1. Must have a valid driver’s license and the appropriate state mandated minimum automobile insurance requirements.

Approvals:

President _____

Date _____

Senior Plant Engineer _____

Date _____