



Date: February 2025
Job Title: Process/Mechanical Department Manager
Reports To: Director of Engineering
FLSA Status: Exempt

Summary: Assists in the planning of all aspects of engineering activities and resource requirements within the department. Ensures all department activities, initiatives, and processes are in conformance with organization's established policies and objectives. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others.

Essential Management Functions:

Responsibilities include but are not limited to the following:

- Determines work procedures, prepares work schedules and expedites workflow.
- Issues written and oral instructions.
- Assigns duties and examines work for exactness, neatness and conformance to policies and procedures.
- Responsible for the development of department scopes of work and cost estimates for all project proposals.
- Responsible for the successful completion of appropriate and defined engineering deliverables within the allowable project budget.
- Develop resource requirements to maintain appropriate staffing levels and competencies as well as addressing staff training needs and requirements.

Essential Technical Functions:

- Develop process engineering drawings, datasheets, lists, and specifications for heavy industrial projects, including but not limited to: piping and instrumentation diagrams (P&IDs), process flow diagrams (PFDs), material and energy balances, process equipment sizing and selection, pipe and valve sizing and materials selection, overpressure protection system design, process instrumentation and controls specifications, etc. in accordance with all applicable industry, regulatory, and client-specific codes, standards, and requirements.
- Participate in PHA/HAZOP reviews and address PHA/HAZOP recommendations.
- Performs design calculations and execution of computer programs.
- Clearly and professionally presents and receives technical information to/from both internal and external customers.
- Provide technical expertise to support the procurement of materials for client projects.
- Synthesize available technical information into practical design alternatives and apply these alternatives to process engineering drawings, datasheets, lists, and specifications.
- Review and approve design calculations and specifications developed by junior engineers/specialists to ensure technical accuracy and adherence to CSD and other applicable standards and codes. Mentor junior engineers/specialists within the department.
- Provides overall technical leadership in their discipline during the execution of a project. This may include coordination of activities of all discipline project team members. May direct the work of other engineers/specialists and designers as required to complete the discipline specific scope of work for multiple ongoing projects of various sizes and complexity.



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- Reviews engineering cost estimates and scope development for proposals and change order requests for tasks related to their area of expertise.
- When required, provide leadership in detailed designs, specifications, directing installation, commissioning, and start-up at the client's site.
- Assist in making presentations to prospective new clients for potential projects directly related to their area of expertise.
- Provides input to department management in identifying tools, procedures and training that will help improve productivity and reduce costs.

Education and Experience Requirements:

- Requires a bachelor's degree in chemical engineering from an ABET-accredited university and a minimum of 10 years of relevant process engineering experience. A bachelor's degree in mechanical engineering, mechanical engineering technology, petroleum engineering, or aerospace engineering are also acceptable with accompanying relevant process engineering experience.
- Process design experience in one or more of the following industries is required: chemicals, metals, oil and gas, public utilities (including power generation), renewable energy, and/or wastewater treatment.
- Proficiency with piping and instrumentation diagrams, process flow diagrams, material and energy balances, process equipment sizing and selection, process controls, industrial instrumentation, HAZOP, and overpressure protection system design is required.
- Previous experience in a managerial or project/discipline lead position directing the work of others.
- General computer proficiency.
- Must possess a valid driver's license and credit card with the ability to travel as needed.
- Professional Engineer Certification (PE) preferred but not required.
- Possesses excellent leadership, organizational, and interpersonal skills.
- Has an excellent working knowledge of general engineering and design principles.
- Ability to work in a team environment for project collaboration.
- Ability to successfully pass government security checks.
- A wide degree of creativity and latitude is expected.