



Date: April 2024
Job Title: Process Engineer/Specialist
Reports To: Department Manager
FLSA Status: Exempt

Summary: Position requires thorough knowledge of process design and engineering techniques. Responsible for planning and conducting work independently that requires judgment in the evaluation, selection, application and adaptation of engineering techniques and procedures. Devise new approaches to problems, and prepare or modify drawings, specifications, calculations, charts and graphs, and monitor work for compliance to applicable codes, accepted engineering practices and client and/or CSD standards.

Essential Functions:

1. 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.
2. Participate in PHA/HAZOP reviews and address PHA/HAZOP recommendations.
3. Performs design calculations and execution of computer programs.
4. Clearly and professionally presents and receives technical information to/from both internal and external customers.
5. Provide technical expertise to support the procurement of materials for client projects.
6. Synthesize available technical information into practical design alternatives and apply these alternatives to process engineering drawings, datasheets, lists, and specifications.
7. 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.
8. 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.
9. Reviews engineering cost estimates and scope development for proposals and change order requests for tasks related to their area of expertise.
10. When required, provide leadership in detailed designs, specifications, directing installation, commissioning, and start-up at the client's site.



ENGINEERS

11. Assist in making presentations to prospective new clients for potential projects directly related to their area of expertise.
12. 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.
- Proficiency with Aspen HYSYS, BRE ProMax, or similar process modeling software is required.
- Experience with DNV PHAST, iPRSM, PIPE-FLO, Aspen Flare System Analyzer, and/or Aspen Capital Cost Estimator software is a plus.
- Working knowledge of applicable industry codes and standards, including but not limited to: API 520/521, API 2000, ASME BPVC, ASME B31.1/B31.3, and OSHA PSM is required.
- Field experience in heavy industrial settings is preferred.
- Experience in the construction and/or operation of heavy industrial facilities is preferred.
- General computer proficiency.

Qualifications:

- Professional Engineer (PE) certification preferred.
- Possesses good leadership, organizational, teamwork, and interpersonal skills.
- Ability to successfully pass a drug and alcohol test and government security checks.
- Must possess a valid driver's license and credit card with the ability to travel within the United States of America as needed.
- Must be able to perform site visits to industrial manufacturing facilities.