



SENIOR ENGINEER, PROCESS/PROJECT
Winchester, Kentucky

Department: Engineering and Technical Services
Reports To: Manager, Process Engineering
FLSA Status: Exempt

Job Summary:

Provide Process and Project Engineering services to Manufacturing and Technology groups in order to achieve the objectives and expectations of customers, both internal and external. Design, develop, test, and evaluate integrated systems for managing production-scale algal and fungal fermentation, oil extraction, refining and packaging processes to include human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination.

Essential Duties and Responsibilities:

1. Utilize project management skills to develop project plans, estimate project installation costs and operating cost impacts, schedule project milestones and resources, specify and purchase equipment, manage installation, operation startup and performance qualification testing.
2. Write, review, and revise Standard Operating Procedures for existing and new processes incorporating information to meet all regulatory standards (GMP, EPA, OSHA, NFPA and any others that may apply).
3. Develop and update P&ID's to reflect actual installed operations or sufficient for engineering and construction of new manufacturing processes using new technologies.
4. Input and update equipment information files in Computerized Maintenance Management System (currently MP2).
5. Train operators and transfer technology to the Production and Maintenance Departments, including recommended spare parts lists and preventive maintenance tasks and intervals.
6. Evaluate existing processes and recommend methods for improving utilization of personnel, material, and utilities to meet quality, cost and productivity expectations.
7. Analyze processes for change in feed materials, robustness, safety, impurities and waste materials to support continuous improvement.
8. Complete energy and mass balances, stream physical properties and equipment performance analysis.
9. Utilize Hazard Analysis and Root Cause Failure Analysis in a team derived approach to determine true solutions to plant problems.
10. Confer with vendors, staff, and management personnel regarding purchases, procedures, product specifications, manufacturing capabilities, and project status.
11. Collect, analyze, interpret and communicate data.
12. Communicate with management and user personnel to develop production and design standards.
13. All other duties as assigned.

Supervisory Responsibilities:

May supervise engineers/technician/co-op staff and may direct contractors.

Qualifications:

1. Bachelor degree in Chemical, Mechanical or Electrical Engineering or related field with 5-8 years of industrial/process improvement experience in the biotechnology industry preferred. VOC, air permitting, and solvent extraction experience a plus.
2. Demonstrated ability to communicate, plan, organize and document project requirements. Proven track record of successful participation in or management of plant projects
3. Demonstrated successful track record in developing new processes or process improvements and related standard operating procedures/protocols.
4. Ability to practice good management skills required to supervise staff and direct contractors.
5. Good organizational and communication skills, including ability to adapt to technical and non-technical individuals.
6. Strong self directed decision maker capable of establishing solutions and fully implementing them.
7. Familiarity with basic laboratory procedures and practices, validation procedures, GMP.
8. Excellent computer skills.
9. Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
10. Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.
11. Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
12. Knowledge of OSHA PSM and NFPA 36 requirements for a solvent extraction production facility.

Requirements:

Hazardous Waste Training and Duties:

"Employees in this position may receive hazardous waste training and may be required to carry out hazardous waste and hazardous materials duties."

Physical Demands:

N (N/A)	A (1 – 25%)	B (26 – 50%)	C (51 – 75%)	D (76 – 100%)
Sitting		<u>C</u> %	Standing	<u>A</u> %
Walking		<u>B</u> %	Driving	<u>A</u> %
Bending/Stooping		<u>A</u> %	Climbing	<u>A</u> %
Reach above shoulder		<u>A</u> %	Kneeling	<u>A</u> %
Pushing/Pulling		<u>A</u> %	Crawling/Crouching	<u>A</u> %
Lifting		<u>50</u> lbs		

Computer work	_____ N/A	_____ Minimal	_____ Moderate	<u>XX</u> Significant
Temperature extremes	_____ N/A	_____ Minimal	<u>XX</u> Moderate	_____ Significant
Noise	_____ N/A	_____ Minimal	<u>XX</u> Moderate	_____ Significant

Travel:

Domestic < 5 % International 0 %

Other Exposures/Demands:

This position requires the ability to:

- Work safely in manufacturing environment that utilizes audible signals and alarms
- Effectively communicate using radios and telephones in manufacturing environment
- Demonstrate visual recognition of workplace hazards
- Read and comprehend labels and MSDS sheets
- Work in high elevations and in enclosed spaces with proper permitting
- Wear half face and/or full face respirator

Please submit your resume and/or application (www.martek.com) to Human Resources at kyjobs@martek.com or fax to 859-744-8364.

Martek Biosciences Corporation is an Equal Opportunity Employer.
M/F/V/D