REQUEST FOR PROPOSAL (RFP)

Bradford, Morgan and Simmons

PROJECT OVERVIEW

Name: Tech Robinsonbury Emergency Response
Type: Emergency Response
Location: Robinsonbury, MP (Industrial Park)
Industry: Manufacturing
Value: $5,200,803
Complexity: 2/5
Date: April 09, 2025
Disciplines: Process Engineering, Industrial Automation
Regulations: ASME Standards, ISO 9001

SCOPE OF WORK

Scope of Work: Manufacturing Process Improvement Project

Project Goal: Improve the efficiency and safety of the existing bottling line for a juice manufacturing plant.

Disciplines: Process Engineering, Industrial Automation

Complexity: 2/5

Regulations: ASME BPE (Bioprocessing Equipment), relevant sections of ISO 9001 where applicable.

Process Engineering Tasks:

1. Bottling Line Optimization: Analyze the current bottling line layout (approximately 20m x 5m) using process mapping techniques to identify bottlenecks. Develop and document a revised layout to improve throughput by at least 15%, minimizing material handling and incorporating ergonomic principles for improved operator safety, including detailed flow charts and 2D CAD drawings of the proposed layout.
2. CIP System Upgrade: Design and specify upgrades to the existing Clean-In-Place (CIP) system to reduce cleaning cycle times by 10%. This will include selecting appropriate CIP components (pumps, valves, sensors) from reputable vendors, adhering to ASME BPE standards for sanitary design and providing a detailed bill of materials and a system P&ID.
3. Bottle Inspection Enhancement: Evaluate the current bottle inspection system and recommend improvements to reduce the rate of defective bottles by 5%. This will involve researching and selecting a suitable automated vision inspection system (resolution of at least 1080p), specifying the required integration with the existing PLC system and producing a functional specification for the new system.

Industrial Automation Tasks:

1. PLC Program Modification: Modify the existing Programmable Logic Controller (PLC) program (Allen-Bradley CompactLogix platform) to incorporate the revised bottling line layout and CIP system upgrades. This will involve updating the PLC ladder logic, creating a detailed functional test plan and conducting thorough testing to ensure seamless integration with the new equipment and improved efficiency.
2. HMI Enhancement: Develop a new Human-Machine Interface (HMI) screen using FactoryTalk View SE, providing operators with real-time visualization of key process parameters (fill level, speed, pressure) and improved alarm management. This includes developing intuitive graphical displays, improved alarm handling logic and creating user manuals for operator training.

Cross-Disciplinary Tasks:

1. Integration Testing: Conduct integrated testing of the modified PLC program, HMI, and upgraded CIP system to validate the functionality of all systems and ensure seamless integration, documenting all test results and resolving identified issues. This requires close collaboration between process and automation engineers to ensure a successful implementation.
2. Documentation and Handover: Prepare comprehensive documentation, including as-built drawings, PLC program backups, HMI configuration files, and operating instructions, for handover to the plant operations team. This ensures a smooth transition to the new system and allows for ongoing maintenance and operation by plant personnel.

Complexity Impact Note: The project complexity is rated at a 2/5 due to the relatively straightforward nature of the improvements and the existing infrastructure.

REQUEST FOR QUOTATION

Request for Quotation (RFQ): Tech Robinsonbury Emergency Response

Project Title: Tech Robinsonbury Emergency Response ? Bottling Line Improvement

Project Location: Robinsonbury Industrial Park, MP

Issue Date: April 9, 2025

Due Date: April 24, 2025

Project Overview: This project aims to improve the efficiency and safety of the existing bottling line at a juice manufacturing plant in Robinsonbury, MP. The scope includes process engineering optimization, CIP system upgrades, bottle inspection enhancements, PLC programming modifications, HMI development, and comprehensive integration and testing. See detailed scope of work below.

Scope of Work (Summary):

* Process Engineering: Bottling line layout optimization (15% throughput increase), CIP system upgrade (10% reduced cycle time), bottle inspection system enhancement (5% defect reduction).
* Industrial Automation: PLC program modification (Allen-Bradley CompactLogix), HMI development (FactoryTalk View SE).
* Cross-Disciplinary: Integrated system testing, comprehensive documentation and handover.

Detailed Scope of Work: (See attached document for complete details)

Qualifications:

* Minimum 3 years? experience in manufacturing process improvement projects within the food and beverage industry.
* Demonstrated experience in adhering to ASME BPE and relevant ISO 9001 standards.
* Proven track record of successful project delivery.

Proposal Requirements:

* Detailed technical design (1-2 pages maximum) outlining proposed solutions for each task.
* Comprehensive cost breakdown.

Evaluation Criteria:

* Technical Approach (50%)
* Cost (30%)
* Experience and Qualifications (20%)

Timeline:

*** RFQ Release: April 9, 2025**

*** Questions Due: April 18, 2025**

*** Proposals Due: April 24, 2025**

*** Project Start: May 5, 2025**

*** Project Duration: 5 months**

Contract Type: Fixed Price

Submission: Submit your proposal electronically to procurement@manufacturing.com.

Contact: For any questions, please contact procurement@manufacturing.com.

CONTACT

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TIMELINE

Include key dates such as submission deadlines, inquiry deadlines, and project start dates.