REQUEST FOR PROPOSAL (RFP)

Fischer-Watkins

PROJECT OVERVIEW

Name: Indust Joshuaview Facility Upgrade
Type: Facility Upgrade
Location: Joshuaview, RI (Factory Complex)
Industry: Manufacturing
Value: $5,615,849
Complexity: 1/5
Date: April 09, 2025
Disciplines: Process Engineering, Industrial Automation, Electrical Engineering
Regulations: OSHA Regulations

SCOPE OF WORK

Scope of Work: Industrial Manufacturing Line Upgrade - Project "Alpha"

Project Goal: Upgrade an existing manufacturing line to improve efficiency and throughput by 15%, while adhering to all relevant OSHA safety regulations.

Phase 1: Process Engineering
1. Process Optimization: Analyze the current manufacturing process using process mapping and value stream mapping techniques to identify bottlenecks. Develop and document a revised process flow diagram (PFD) that incorporates improvements in material handling and workflow, aiming for a 15% reduction in cycle time, and submit a detailed report with proposed changes, including justifications for the changes implemented in the PFD.
2. Material Selection & Specification: Specify the material requirements for the upgraded process based on performance, durability and cost-effectiveness. Define the material properties (e.g., tensile strength, corrosion resistance for stainless steel components) and provide a Bill of Materials (BOM) including quantities for all required components. This BOM will adhere to industry standards for the relevant material, referencing material safety data sheets (MSDS) where applicable.

Phase 2: Industrial Automation
1. PLC Programming & HMI Design: Program a Siemens S7-1500 PLC to control the automated conveyor system using structured text (ST) programming language and develop a user-friendly Human Machine Interface (HMI) using TIA Portal software, providing real-time monitoring and control of all manufacturing line elements. The HMI will display key performance indicators (KPIs) such as cycle time and production rate.
2. Robot Integration (Optional): Integrate a Fanuc R-2000iB industrial robot (or similar) into the production line for automated pick-and-place operations, creating a program to automate the transfer of components between conveyor stages. Integrate safety features, including light curtains and emergency stops, complying with relevant OSHA guidelines for robot safety. Deliver complete robot cell layout drawings including safety zones.

Phase 3: Electrical Engineering
1. Power Distribution Upgrade: Design and implement an upgraded power distribution system for the manufacturing line, ensuring adequate capacity to support new equipment and increased throughput. This includes calculating power requirements, specifying appropriate circuit breakers and cabling (e.g., using AWG 12 gauge copper wiring for motors and controls) and preparing detailed electrical schematics conforming to NFPA 70 (NEC) standards.
2. Safety System Design: Design and implement a comprehensive safety system, including emergency stop buttons, light curtains, and interlocks, in accordance with OSHA standards for machine guarding. This will involve the creation of safety circuit diagrams and ensure compliance with all relevant safety regulations, delivering a detailed safety assessment report documenting all safety measures implemented.
Cross-Disciplinary Tasks:
1. Integration Testing: Conduct thorough integration testing of all systems (process, automation, electrical) to ensure seamless operation and data exchange between the PLC, HMI, and robotic system (if applicable). This will involve creating a comprehensive test plan outlining all test scenarios and documenting results.
2. Documentation & Handover: Create comprehensive documentation, including process flow diagrams, PLC programs, electrical schematics, and operation manuals. The documentation will be delivered to the client for training and future maintenance purposes.

Complexity Impact: This project's complexity is assessed as a 1/5 due to the nature of the upgrades being relatively straightforward modifications to existing infrastructure.

REQUEST FOR QUOTATION

Request for Quotation: Indust Joshuaview Facility Upgrade - Project Alpha

1. Project Overview:

The Indust Joshuaview Facility, located in Joshuaview, RI, seeks a qualified contractor to upgrade an existing manufacturing line (Project Alpha) to improve efficiency and throughput by 15%. The project involves process engineering, industrial automation (including optional robot integration), and electrical engineering upgrades. This is a relatively straightforward modification to existing infrastructure (Complexity: 1/5).

2. Scope of Work: See attached detailed Scope of Work document outlining Phases 1 (Process Engineering), 2 (Industrial Automation), and 3 (Electrical Engineering), including cross-disciplinary tasks (Integration Testing & Documentation).

3. Qualifications:

Bidders must demonstrate 3+ years of experience in industrial manufacturing facility upgrades, with a proven track record of regulatory compliance (OSHA, NFPA 70).

4. Proposal Requirements:

Proposals should include:

* A concise technical design (1-2 pages max) outlining the proposed approach to each phase.
* A detailed cost breakdown.

5. Evaluation Criteria:

Proposals will be evaluated based on:

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

6. Project Timeline:

* **RFQ Release: April 09, 2025**
* **Questions Due: April 21, 2025**
* **Proposals Due: April 29, 2025**
* **Project Start: May 28, 2025**
* Project Duration: 11 months

7. Contract Type: Fixed Price

8. Contact:

Submit proposals electronically to procurement@manufacturing.com

CONTACT

Christine Tyler, Contracts Administrator
Phone: (634)786-3474x4192
Email: christine@fischer-watkins.com

TIMELINE

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