

REQUEST FOR PROPOSAL (RFP)

Morris, Pope and Brock

PROJECT OVERVIEW

Name: Forge Ashlee Automation Retrofit
Type: Automation Retrofit
Location: New Ashlee, WA (Refinery Zone)
Industry: Manufacturing
Value: \$2,210,360
Complexity: 2/5
Date: April 09, 2025
Disciplines: Industrial Automation, Process Engineering
Regulations: ISO 9001

SCOPE OF WORK

Scope of Work: Generic Automation Retrofit in a Refinery Zone

Project Goal: Retrofit existing manual control systems within a designated refinery zone (Zone A) with modern automated systems, improving efficiency, safety, and data acquisition.

1. Industrial Automation Discipline:

* **Task 1.1: PLC System Upgrade and Programming:** Replace the existing obsolete Programmable Logic Controller (PLC) system with a new Allen-Bradley PLC-5000 series unit. The system will incorporate existing field device I/O points and control 15 process variables (temperature, pressure, flow, level) with enhanced safety features conforming to IEC 61131-3 standards. Deliverables include PLC program code, I/O point list, and a functional test report.

* **Task 1.2: Human-Machine Interface (HMI) Development and Deployment:** Develop a new HMI system using Wonderware Intouch software, providing operators with real-time process visualization and control. The HMI will display 20 key process variables, offer alarm management capabilities, and integrate with the upgraded PLC system via Ethernet/IP communication. Deliverables include HMI screens, database schema, and operator training materials.

* **Task 1.3: Network Infrastructure Enhancement:** Upgrade the existing industrial Ethernet network within Zone A to support the new automation system. This will involve the installation of 100m of Cat6 shielded cabling, implementing a redundant network topology and configuration using Profinet protocols and adhering to ISA-95 standards for industrial automation networks. Deliverables include network diagrams, cable schedules, and a network performance test report.

2. Process Engineering Discipline:

* **Task 2.1: Process Instrumentation Review and Calibration:** Review existing process instrumentation (transmitters, valves, etc.) within the designated area (approx. 500 m²) of Zone A to identify components needing recalibration or replacement. Calibrate or replace at least 10 critical instruments to ensure accuracy within $\pm 1\%$ of full scale, following ISA-10 standards and documenting all calibration data. Deliverables include a calibration report and updated P&IDs.

* **Task 2.2: Safety Instrumented System (SIS) Review and Enhancement:** Review the existing SIS within Zone A to ensure compliance with current safety regulations. This involves reviewing the logic solver and safety relays, updating documentation and ensuring proper maintenance of the Emergency Shutdown (ESD) System, meeting SIL 2 requirements (IEC 61508). Deliverables include a SIS risk assessment report and updated documentation.

Cross-Disciplinary Tasks:

* **Task 3.1: Integrated System Testing and Commissioning:** Conduct thorough integrated testing of the upgraded automation system, verifying functionality and interoperability between the PLC, HMI, and process instrumentation. This involves developing a test plan and executing the plan including loop testing with process engineering personnel. Deliverables include a test plan, test results, and a commissioning report.

* **Task 3.2: Documentation and Handover:** Develop comprehensive documentation, including updated P&IDs, electrical schematics, PLC code, HMI screens, and network diagrams, adhering to ISO 9001 quality management guidelines. Provide comprehensive training to refinery personnel on the operation and maintenance of the upgraded system including updated safety procedures. Deliverables include a complete operations and maintenance manual and training records.

Complexity Impact: The project complexity is deemed 2/5 due to the scope focusing on a relatively localized area with mostly straightforward upgrades, requiring minimal redesign.

REQUEST FOR QUOTATION

Request for Quotation (RFQ): Forge Ashlee Automation Retrofit

Project Name: Forge Ashlee Automation Retrofit

Project Location: Refinery Zone A, New Ashlee, WA

Industry: Manufacturing

Date: April 09, 2025

1. Project Overview:

This RFQ seeks proposals for a retrofit of existing manual control systems within a designated refinery zone (Zone A) at the New Ashlee facility with modern automated systems. The goal is to improve efficiency, safety, and data acquisition. The project involves upgrading PLC, HMI, network infrastructure, process instrumentation, and the Safety Instrumented System (SIS). A detailed Scope of Work is attached (see below). Complexity is rated 2/5.

2. Scope of Work:

(Detailed scope outlined above ? Refer to attached document)

3. Qualifications:

Prospective bidders must demonstrate 3+ years of experience in industrial automation within the manufacturing sector, with a proven track record of regulatory compliance (including IEC 61131-3, ISA-95, ISA-10, IEC 61508, and ISO 9001).

4. Proposal Requirements:

Proposals must include:

- * A comprehensive technical design (1-2 pages) outlining the proposed solution for each task.
- * A detailed cost breakdown, clearly identifying all direct and indirect costs.

5. Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

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

6. Timeline:

- * RFQ Release Date: April 09, 2025
- * Questions Due: April 25, 2025
- * Proposal Due Date: May 19, 2025
- * Project Start Date: May 14, 2025
- * Project Duration: 10 months

7. Contract Type: Fixed Price

8. Contact:

Submit proposals electronically to: procurement@manufacturing.com

Note: A detailed Scope of Work is attached, outlining specific tasks and deliverables for each discipline. The attached document contains the full description outlined above.

CONTACT

Mark Torres, Contracts Administrator
Phone: 001-415-209-8706x2442
Email: mark@morrispopeandbrock.com

TIMELINE

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