

REQUEST FOR PROPOSAL (RFP)

Pacheco, Crane and Lyons

PROJECT OVERVIEW

Name: Refine Julieburgh Plant Expansion
Type: Plant Expansion
Location: Julieburgh, MO (Refinery Zone)
Industry: Oil & Gas
Value: \$878,246
Complexity: 1/5
Date: April 09, 2025
Disciplines: Process Engineering, Instrumentation & Controls
Regulations: OSHA Regulations

SCOPE OF WORK

Scope of Work: Oil & Gas Facility - Minor Process Optimization

Project Goal: Implement minor process improvements at an existing oil processing facility to enhance efficiency and reduce operational costs, focusing on a single, clearly defined area within the facility (e.g., a specific section of the processing train).

Discipline: Process Engineering

1. Process Optimization Study: Conduct a process simulation study of the existing crude pre-heating section (estimated throughput 500 bpd) using Aspen Plus software to identify opportunities for energy efficiency improvements. The study will involve modifying existing heat exchanger configurations and evaluating the impact on process parameters such as temperature profiles and pressure drops. Deliverables include a revised P&ID incorporating the proposed changes and a detailed report documenting the simulation results and the projected energy savings.
2. Valve Sizing and Selection: Update the sizing and selection of control valves (estimated 5 valves) in the existing degassing unit based on new process flow rates determined from the optimization study. This task requires specifying valves meeting API 600 standards, with materials compatible with sour gas service (NACE MR0175), and providing calculations to justify valve sizing, including the selection of actuators. Deliverables include valve specifications and detailed vendor drawings.
3. Update of Process Safety Information: Update existing Process Safety Information (PSI) documents to reflect the proposed process changes, including the updated P&ID, revised process parameters, and HAZOP study findings (relevant to the scope of the modification). The updated PSI documentation must comply with OSHA Process Safety Management (PSM) regulations.

Discipline: Instrumentation & Controls

1. Control Loop Tuning: Optimize the control loops (estimated 3 loops) associated with the crude pre-heating section, utilising the updated process parameters from the process optimization study. This involves using advanced control techniques to minimize process variability and ensure optimal control performance, including verification of stability and performance. Deliverables include detailed tuning calculations and updated control loop diagrams (CLDs).
2. Instrumentation Specification and Selection: Specify and select new instrumentation (estimated 2 temperature transmitters, 1 pressure transmitter) for the degassing unit to replace aging and/or underperforming existing equipment. This involves selecting instruments meeting ISA standards with appropriate explosion-proof certifications for hazardous areas (Class I, Div 2), including detailed specifications and datasheets for each instrument. Deliverables include instrumentation specifications and a procurement list.

Cross-Disciplinary Tasks:

1. HAZOP Review: Conduct a HAZOP (Hazard and Operability) study of the proposed modifications with participation from both process engineering and instrumentation & controls engineers. This involves a joint review of the modified P&ID and process descriptions, identifying potential hazards and operability issues, and developing appropriate mitigation strategies. The HAZOP study will meet OSHA PSM requirements.
2. Combined P&ID Review and Sign-off: Following completion of Process Engineering and I&C tasks, conduct a joint review to ensure complete alignment between the finalized process design and the instrument specifications. This ensures a cohesive and functional system, and it should result in sign-off documents from both disciplines, approving the integrated design for implementation.

Complexity Impact: The project is classified as Level 1 complexity due to the limited scope and straightforward nature of the modifications.

REQUEST FOR QUOTATION

Request for Quotation: Refine Julieburgh Plant Expansion

Project: Refine Julieburgh Plant Expansion ? Minor Process Optimization (Oil & Gas Facility)

Location: Refinery Zone, Julieburgh, MO

Date: April 09, 2025

Introduction:

This RFQ solicits proposals for minor process improvements at our Julieburgh oil processing facility. The project focuses on enhancing efficiency and reducing operational costs within the crude pre-heating and degassing units (approx. 500 bpd throughput). The work involves process engineering, instrumentation & controls, and cross-disciplinary tasks (detailed below). This is a Level 1 complexity project.

Scope of Work:

- * Process Engineering: Process optimization study (Aspen Plus simulation), valve sizing & selection (API 600, NACE MR0175 compliant), PSI updates (OSHA PSM compliant).
- * Instrumentation & Controls: Control loop tuning (advanced control techniques), instrumentation specification & selection (ISA standards, Class I, Div 2 certified).
- * Cross-Disciplinary: HAZOP study (OSHA PSM compliant), combined P&ID review & sign-off.

Deliverables: Revised P&ID, detailed reports, valve specifications, vendor drawings, updated PSI documents, tuning calculations, CLDs, instrumentation specifications, procurement list, HAZOP report, sign-off documents.

Qualifications: Minimum 3 years' experience in the Oil & Gas industry with proven regulatory compliance (OSHA PSM, API, ISA, NACE).
Proposal Requirements:

1. Company qualifications and relevant experience.
2. Detailed technical design (1-2 pages max).
3. Comprehensive cost breakdown.

Evaluation Criteria: Technical Approach (50%), Cost (30%), Experience (20%).

Timeline:

- * RFQ Release: April 09, 2025
- * Questions Due: April 16, 2025
- * Proposals Due: May 16, 2025
- * Project Start: May 16, 2025
- * Project Duration: 5 months

Contract Type: Fixed Price

Submission: Submit proposals electronically to procurement@oil&gas.com

Contact: [Insert Contact Name and Phone Number Here]

CONTACT

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TIMELINE

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