REQUEST FOR PROPOSAL (RFP)

Hatfield, Thompson and Goodman

PROJECT OVERVIEW

Name: Chem Reynoldshaven Modernization
Type: Modernization
Location: Reynoldshaven, RI (Factory Complex)
Industry: Chemical Processing
Value: $9,665,959
Complexity: 1/5
Date: April 09, 2025
Disciplines: Mechanical Engineering, Piping & Pipeline
Regulations: EPA Requirements, ISO 14001

SCOPE OF WORK

Scope of Work: Chemical Processing Factory Modernization - Generic Upgrades

Project Goal: To modernize a section of the existing chemical processing factory complex, improving efficiency and safety while adhering to EPA and relevant ISO 14001 standards. This project focuses on mechanical equipment upgrades and associated piping modifications.

I. Mechanical Engineering

1. Pump Replacement and Motor Upgrade: Replace three (3) existing centrifugal pumps (model X-123, capacity 500 GPM each) with high-efficiency models (model Y-456, capacity 600 GPM each) to reduce energy consumption. This includes the procurement, installation, and commissioning of new pumps and 75 HP, 460V three-phase motors, adhering to ANSI standards for pump alignment and vibration monitoring. All work shall be documented with as-built drawings and operational test results.

2. Heat Exchanger Inspection and Repair: Inspect five (5) existing shell and tube heat exchangers (Type 316 Stainless Steel, 2m x 1m dimensions) for leaks and corrosion. Repair or replace any damaged tubes using suitable welding techniques and materials compliant with ASME Section VIII, Division 1. Documentation will include inspection reports, repair procedures, and material certifications.

3. Valve Replacement and Automation: Replace ten (10) manual valves (2" DN, Schedule 80) with automated ball valves (2" DN, Schedule 80) within the main process line, controlled via a programmable logic controller (PLC). This includes procurement, installation, wiring, and programming of the valves and PLC to meet the factory's existing control system architecture.

II. Piping & Pipeline

1. Process Line Rerouting (Section A): Reroute a 4-inch (DN100), Schedule 40 carbon steel process line (approximately 15 meters) to improve accessibility for maintenance. This includes detailed piping isometric drawings, material procurement, fabrication (using appropriate welding techniques per ASME B31.3), and installation, ensuring proper pipe support design compliant with relevant industry codes.

2. Instrument Piping Modifications: Install new instrument piping (1/2" DN, 316 Stainless Steel) for the integration of level sensors on three new process vessels. This involves designing and fabricating the piping systems according to ASME B31.1, including appropriate fittings, valves, and support structures and will be documented with isometrics and material take-offs.

III. Cross-Disciplinary Tasks

1. Integration of New Equipment: The Mechanical Engineering and Piping teams will collaborate to ensure proper alignment and connection of the new pumps and heat exchangers with the existing and modified piping systems. This includes joint pre-fabrication where appropriate to minimise on-site disruption and a thorough pre-commissioning inspection plan.

2. HAZOP Study (Section A): A Hazard and Operability Study (HAZOP) will be conducted for the rerouted process line (Section A) by representatives from both Mechanical and Piping disciplines. This will ensure the identified safety risks are addressed prior to commissioning, documenting all findings and mitigation strategies in a formal HAZOP report.

Complexity Impact: This project represents a straightforward modernization effort, aligning with a complexity level of 1/5.

REQUEST FOR QUOTATION

Request for Quotation (RFQ): Chem Reynoldshaven Modernization

Project: Chem Reynoldshaven Modernization ? Chemical Processing Factory Upgrade

Location: Reynoldshaven, RI

Date: April 09, 2025

Due Date: April 29, 2025

Project Overview: This project involves the modernization of a section of our chemical processing factory complex at Reynoldshaven, RI. The work includes mechanical equipment upgrades (pumps, heat exchangers, valves), piping modifications, and integration of new equipment, all while adhering to EPA and ISO 14001 standards. (See detailed Scope of Work below). Complexity Level: 1/5.

Scope of Work: The project encompasses the following:
* Mechanical Engineering: Pump and motor replacement (3 pumps, 75 HP motors); heat exchanger inspection and repair (5 exchangers); automated valve replacement (10 valves) with PLC integration.
* Piping & Pipeline: Process line rerouting (approx. 15 meters); instrument piping installation for level sensors (3 vessels).
* Cross-Disciplinary Tasks: Integration of new equipment; HAZOP study for rerouted process line (Section A).
Detailed Scope of Work available upon request.

Qualifications: Bidders must demonstrate a minimum of 3 years of experience in chemical processing plant modernization, with a proven track record of regulatory compliance (EPA, ISO 14001).
Proposal Requirements: Proposals must include:

1. Technical designs (1-2 pages) detailing proposed solutions and methodologies.

2. A comprehensive cost breakdown.
Evaluation Criteria: Proposals will be evaluated based on: Technical Approach (50%), Cost (30%), and Experience (20%).

Contract Type: Fixed Price

Timeline:

*** RFQ Release: April 09, 2025**

*** Questions Due: April 19, 2025**

*** Proposals Due: April 29, 2025**

*** Project Start: May 14, 2025**
* Project Duration: 6 months
Submit Proposals to: procurement@chemicalprocessing.com

CONTACT

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TIMELINE

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