REQUEST FOR PROPOSAL (RFP)

Wagner-Calhoun

PROJECT OVERVIEW

Name: Synth Greeneview Modernization
Type: Modernization
Location: Greeneview, AL (Factory Complex)
Industry: Chemical Processing
Value: $1,071,025
Complexity: 2/5
Date: April 09, 2025
Disciplines: Environmental Engineering, Mechanical Engineering, Piping & Pipeline
Regulations: EPA Requirements

SCOPE OF WORK

Scope of Work: Chemical Processing Factory Modernization

Project Goal: Modernize a section of the existing chemical processing factory to improve efficiency, safety, and compliance with EPA regulations where applicable. The modernization focuses on updating aging equipment and piping systems within a designated area (approximately 1000 sq. meters).

1. Environmental Engineering:

*** Task 1: Wastewater Treatment Optimization: Assess the existing wastewater treatment system's efficiency and capacity. Develop and implement a plan to improve treatment efficiency by at least 15%, focusing on reducing BOD and COD levels to meet EPA discharge limits (specify relevant EPA permit number if available). Deliverables include a detailed assessment report, an updated treatment plan, and operating procedure manuals.**

*** Task 2: Air Emissions Monitoring and Control Upgrade: Conduct a comprehensive air emissions inventory for the designated area, identifying potential sources of VOC and particulate matter emissions. Implement modifications to existing control equipment (e.g., scrubbers, filters) or recommend cost-effective upgrades to meet applicable EPA emission standards (specify relevant EPA regulation number if available). Deliverables include an emissions inventory report, an equipment upgrade plan (including specifications and drawings), and a cost analysis.**

2. Mechanical Engineering:

*** Task 1: Reactor Vessel Upgrade: Replace the existing 5m³ stainless steel (316L) reactor vessel with a new 7m³ vessel of the same material, incorporating improved mixing technology. The new vessel must meet ASME Section VIII, Division 1 standards and include pressure relief valves sized according to API 520. Deliverables include detailed engineering drawings, material specifications, vendor documentation, and a commissioning checklist.**

*** Task 2: Pump System Optimization: Analyze the existing pump system performance and recommend upgrades to improve efficiency and reduce energy consumption by at least 10%. This may involve replacing inefficient pumps with high-efficiency models, optimizing piping layouts, and implementing variable frequency drives. Deliverables include an energy audit report, pump specifications, and updated piping and instrumentation diagrams (P&IDs).**

3. Piping & Pipeline:

*** Task 1: Chemical Transfer Line Replacement: Replace 100 meters of existing Schedule 40 carbon steel piping transferring a corrosive chemical (specify chemical) with Schedule 80 stainless steel (316L) piping. This work must adhere to ASME B31.3 standards and include appropriate corrosion protection measures. Deliverables include detailed isometrics, material specifications, and a welding procedure specification (WPS).**

*** Task 2: Pressure Relief Valve Inspection and Replacement: Inspect all pressure relief valves within the designated area. Replace any valves that fail inspection or are beyond their recommended service life. Ensure replaced valves meet appropriate ASME and API standards (specify standards). Deliverables include an inspection report, replaced valve specifications, and updated P&IDs.**

Cross-Disciplinary Tasks:

*** Task 1: HAZOP Study: Conduct a hazard and operability study (HAZOP) involving representatives from all three disciplines to identify and mitigate potential hazards associated with the modernization project. The study must cover all aspects of the design, construction, and operation of the upgraded systems. Deliverables include a HAZOP report and an implementation plan for identified recommendations.**

*** Task 2: Permitting and Regulatory Compliance: Coordinate with relevant authorities (including EPA representatives, if necessary) to ensure compliance with all applicable environmental regulations throughout the project lifecycle. This includes obtaining necessary permits, submitting required reports, and ensuring all work is conducted according to relevant safety standards. Deliverables include a regulatory compliance plan and documentation of permit approvals.**

Complexity Impact Note: The complexity level is appropriate for the defined scope and tasks.

REQUEST FOR QUOTATION

Request for Quotation: Synth Greeneview Modernization

Project: Synth Greeneview Modernization ? Chemical Processing Factory Modernization

Location: Greeneview, AL

Issued: April 09, 2025 Due: May 07, 2025

Contact: procurement@chemicalprocessing.com

Project Goal: Modernize ~1000 sq. meter section of our chemical processing factory to improve efficiency, safety, and EPA compliance (where applicable). This involves updating aging equipment and piping systems.

Scope of Work: The project encompasses environmental, mechanical, and piping & pipeline engineering tasks (detailed below), culminating in a HAZOP study and full regulatory compliance. Specific chemical(s) involved in the transfer line replacement will be disclosed upon request. Relevant EPA permit/regulation numbers will be provided under NDA.
1. Environmental Engineering: Wastewater treatment optimization (15% efficiency increase, BOD/COD reduction to meet EPA limits); Air emissions monitoring and control upgrade (VOC/particulate matter reduction to meet EPA standards).
2. Mechanical Engineering: Reactor vessel upgrade (5m³ to 7m³, 316L SS, ASME Section VIII, Div 1, API 520); Pump system optimization (10% energy reduction).
3. Piping & Pipeline: Chemical transfer line replacement (100m, Schedule 40 CS to Schedule 80 316L SS, ASME B31.3); Pressure relief valve inspection & replacement (ASME & API standards).
Cross-Disciplinary: HAZOP study; Permitting and regulatory compliance.

Qualifications: Minimum 3 years' experience in chemical processing; proven record of regulatory compliance.
Proposal Requirements: Technical designs (1-2 pages), detailed cost breakdown.
Evaluation Criteria: Technical (50%), Cost (30%), Experience (20%).

Project Timeline:

*** Questions Due: May 02, 2025**

*** Project Start: May 17, 2025**
* Project Duration: 9 months

*** Contract Type: Fixed Price**
This RFQ is for informational purposes only and does not constitute a commitment to award a contract.

CONTACT

Courtney Maxwell, Engineering Manager
Phone: 585-300-7430
Email: courtney@wagner-calhoun.com

TIMELINE

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