REQUEST FOR PROPOSAL (RFP)

Chaney Ltd

PROJECT OVERVIEW

Name: React Kimberly Capacity Enhancement
Type: Capacity Enhancement
Location: New Kimberly, NC (Factory Complex)
Industry: Chemical Processing
Value: $5,732,016
Complexity: 1/5
Date: April 09, 2025
Disciplines: Mechanical Engineering, Piping & Pipeline, Environmental Engineering
Regulations: EPA Requirements

SCOPE OF WORK

Scope of Work: Chemical Processing Capacity Enhancement Project

Project Goal: Increase production capacity of the existing chemical processing factory by 15% without major process changes.

Complexity Level: 1/5
1. Mechanical Engineering:

*** Task 1: Pump Upgrade: Replace three existing centrifugal pumps (model XYZ, capacity 500 GPM each) with higher-capacity models (model ABC, capacity 700 GPM each). This includes procuring the new pumps, performing a detailed pump curve analysis to ensure compatibility with the existing system, and preparing installation specifications including mounting requirements and vibration analysis. All work shall adhere to ASME B73.1 standards.**

*** Task 2: Heat Exchanger Optimization: Clean and inspect three existing shell and tube heat exchangers (1.5m diameter, 3m length) to remove fouling and optimize heat transfer efficiency. This will involve chemical cleaning and pressure testing according to ASME Section VIII, Division 1. A report documenting the cleaning procedure, performance testing data (before and after), and recommendations for preventative maintenance will be produced.**
2. Piping & Pipeline:

*** Task 1: Minor Pipeline Rerouting: Reroute a 4-inch diameter stainless steel (316L) process pipeline (approximately 10 meters) to accommodate the new pump placement, adhering to ASME B31.3 standards. This will involve creating detailed isometric drawings, performing a hydraulic analysis to confirm pressure drop remains within acceptable limits, and specifying the necessary pipe fittings and supports.**

*** Task 2: Valve Replacement: Replace five existing 2-inch ball valves with new, high-performance ball valves (specified material: 316L stainless steel) to improve flow control and reduce maintenance. This task involves creating detailed procurement specifications, ensuring compatibility with existing system pressure and temperature, and providing detailed installation instructions.**
3. Environmental Engineering:

*** Task 1: Wastewater Treatment System Review: Review the existing wastewater treatment system for compliance with EPA requirements concerning the increased production capacity. This involves a site visit, assessment of current effluent parameters, and a report detailing any necessary upgrades or modifications to ensure compliance with discharge permits, focusing on pollutant limits and treatment efficiency.**

*** Task 2: Air Emission Monitoring: Conduct pre and post-upgrade air emission monitoring at the stack to verify that the increased production does not exceed permit limits for volatile organic compounds (VOCs) according to EPA Method 25A. This involves sampling and analysis, with a final report summarizing findings and demonstrating compliance with environmental regulations.**
Cross-Disciplinary Tasks:

*** Task 1: Integrated System Analysis: The Mechanical, Piping, and Environmental Engineering teams will collaboratively review the impact of all upgrades on the overall system performance and ensure seamless integration of the new equipment and pipelines. This will include joint design reviews, risk assessments, and a final system-wide process flow diagram update.**

*** Task 2: Safety Review & Permitting: All three disciplines will collaborate to develop a comprehensive safety plan for the project implementation, covering aspects like lockout/tagout procedures, confined space entry, and potential hazards associated with the upgrades. This plan will be reviewed and approved by plant safety personnel and included in any permit applications required for the project.**
Complexity Impact Note: The project's relatively low complexity is due to the focus on incremental upgrades rather than major process changes or new construction.

REQUEST FOR QUOTATION

Request for Quotation: React Kimberly Capacity Enhancement

Project: Capacity enhancement of the chemical processing facility at New Kimberly, NC.

Project Goal: Increase production capacity by 15% without major process changes.

Scope of Work: This project encompasses mechanical, piping, and environmental engineering upgrades detailed below. A complete scope of work is attached.
Mechanical Engineering: Pump upgrades (3 centrifugal pumps), heat exchanger optimization (3 units).

Piping & Pipeline: Minor pipeline rerouting (10m, 4? dia. 316L SS), valve replacements (5 x 2? ball valves).
Environmental Engineering: Wastewater treatment system review & compliance assessment, pre & post-upgrade air emission monitoring (VOCs, EPA Method 25A).
Cross-Disciplinary Tasks: Integrated system analysis, safety review & permitting.
Project Complexity: Low (1/5)

Requirements:

*** Qualifications: Minimum 3 years? experience in chemical processing, proven record of regulatory compliance (EPA, ASME).**

*** Proposal: Include detailed technical designs (1-2 pages) and a comprehensive cost breakdown.**
* Evaluation Criteria: Technical Approach (50%), Cost (30%), Experience/Qualifications (20%).

Timeline:

*** RFQ Release: April 9, 2025**

*** Questions Due: April 22, 2025**

*** Proposals Due: May 7, 2025**

*** Project Start: May 12, 2025**
* Project Duration: 8 months

Contract Type: Fixed Price

Submission: Submit proposals electronically to procurement@chemicalprocessing.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.