REQUEST FOR PROPOSAL (RFP)

Mcneil, Thomas and Morris

PROJECT OVERVIEW

Name: Chem Jenniferville Modernization
Type: Modernization
Location: Jenniferville, HI (Factory Complex)
Industry: Chemical Processing
Value: $9,439,118
Complexity: 1/5
Date: April 09, 2025
Disciplines: Piping & Pipeline, Environmental Engineering, Process Engineering
Regulations: EPA Requirements

SCOPE OF WORK

Scope of Work: Chemical Processing Plant Modernization - Generic Upgrade

Project Goal: Modernize existing chemical processing equipment and infrastructure to improve efficiency and safety, while ensuring compliance with relevant EPA regulations.

Discipline: Piping & Pipeline
1. Replace existing 4-inch diameter, Schedule 40 carbon steel process piping section (20m length) with 6-inch diameter, Schedule 80 stainless steel piping. This replacement will accommodate increased flow rates, improve corrosion resistance, and enhance system longevity. All work must adhere to ASME B31.3 standards, including detailed isometrics and piping and instrumentation diagrams (P&IDs).
2. Upgrade existing process valve actuators from pneumatic to electric actuators for improved control and automation on five identified process lines. This includes procuring and installing electric actuators compatible with existing valve bodies and the facility's PLC system, along with thorough testing and commissioning to ensure accurate control. Detailed specifications for actuators and associated electrical components will be provided.

Discipline: Environmental Engineering
1. Conduct a site-specific air emissions inventory to assess the impact of proposed modernization efforts on volatile organic compound (VOC) emissions. The inventory should identify emission sources and quantify VOC emissions using EPA Method 21, with a final report summarizing findings and identifying potential mitigation strategies. This assessment must comply with all applicable EPA regulations.
2. Design and implement a new wastewater treatment system for a specific process line, incorporating a pre-treatment stage for enhanced chemical removal prior to discharge. The system design will incorporate activated carbon filtration to meet discharge limits outlined in the local EPA discharge permits. Detailed engineering drawings and calculations, including P&IDs and equipment specifications, will be deliverables.

Discipline: Process Engineering
1. Optimize the control logic for a key process unit to improve reaction yield by 5%, reducing waste generation. This will involve reviewing the existing Programmable Logic Controller (PLC) program, developing and implementing improved control algorithms, and performing simulations to verify performance improvements. Performance testing and documentation of the optimized process are required.
2. Develop and implement a new safety instrumented system (SIS) for a specific piece of critical equipment to improve process safety. This task includes developing functional safety requirements, selecting appropriate safety devices, designing the SIS architecture, and performing safety integrity level (SIL) verification according to IEC 61511 standards. Documentation including SIL calculations and safety requirement specifications will be provided.
Cross-Disciplinary Tasks:
1. Develop a comprehensive safety plan integrating all identified safety requirements and hazards from the three disciplines, ensuring alignment with OSHA regulations. The plan should outline procedures and protocols for all phases of the project, including pre-construction, construction, commissioning, and start-up. Regular safety meetings and training sessions must be included.
2. Coordinate the installation and commissioning of all new equipment and piping to minimize project downtime. This will involve close collaboration between piping, environmental, and process engineering teams to develop a detailed installation schedule and ensure a smooth transition during the plant shutdown and start-up phases. A comprehensive commissioning plan outlining testing procedures and acceptance criteria will be prepared.
Complexity Impact Note: The project's complexity aligns with a Level 1 classification due to the nature of the upgrades.

REQUEST FOR QUOTATION

Request for Quotation: Chem Jenniferville Modernization

Project Name: Chem Jenniferville Modernization

Project Location: Jenniferville Factory Complex, HI

Industry: Chemical Processing

Date: April 09, 2025

1. Introduction:
This RFQ seeks proposals for the modernization of chemical processing equipment and infrastructure at our Jenniferville, HI facility. The project aims to improve efficiency, safety, and regulatory compliance (EPA). The scope encompasses piping, environmental, and process engineering disciplines. Complexity is rated 1/5.

2. Scope of Work: Detailed scope is attached (see below). Briefly, the project includes piping upgrades (including ASME B31.3 compliance), actuator replacements, air emissions inventory (EPA Method 21), wastewater treatment system design & implementation, process control optimization, SIS implementation (IEC 61511), comprehensive safety plan (OSHA), and coordinated installation/commissioning.
3. Qualifications:
Bidders must demonstrate a minimum of 3 years of experience in chemical processing plant modernization, with a proven track record of successful regulatory compliance (EPA).
4. Proposal Requirements:
Proposals must include:
* A concise technical design (1-2 pages) outlining your approach to each scope item.
* A detailed cost breakdown.
5. Evaluation Criteria:
Proposals will be evaluated based on:
* Technical Approach (50%)
* Cost (30%)
* Experience (20%)

6. Timeline:

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

* **Questions Due: April 23, 2025**

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

* **Project Start: May 03, 2025**
* Project Duration: 11 months

* **Contract Type: Fixed Price**

7. Contact:
Submit proposals electronically to: procurement@chemicalprocessing.com
(Detailed Scope of Work Attached ? see original prompt)

CONTACT

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TIMELINE

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