# REQUEST FOR PROPOSAL (RFP)

Bowman, Jones and Davis

## PROJECT OVERVIEW

Name: Refine Janice Plant Expansion
Type: Plant Expansion
Location: Lake Janice, KY (Refinery Zone)
Industry: Oil & Gas
Value: $15,552,959
Complexity: 3/5
Date: April 09, 2025
Disciplines: Piping & Pipeline, Instrumentation & Controls
Regulations: API Standards, EPA Requirements

## SCOPE OF WORK

**Scope of Work: Oil & Gas Processing Facility Upgrade**

**Project Goal: Upgrade existing oil & gas processing facility to increase throughput and improve safety, adhering to all relevant API and EPA standards.**

**Discipline: Piping & Pipeline**

1. Pipeline Rerouting: Design and detail a 500-meter reroute of a 12-inch diameter, carbon steel (API 5L X65) liquid hydrocarbon pipeline to avoid newly constructed facility area. This includes development of isometric drawings, pipe stress analysis per ASME B31.4, bill of materials, and detailed specifications for welding procedures. All design work must conform to API 653 standards for in-service inspection and repair.
2. Process Piping Modification: Modify existing process piping within the existing facility to accommodate a new heat exchanger. This involves detailed 3D modeling of the piping system (using software such as AutoCAD Plant 3D or similar), incorporating 6-inch schedule 40 carbon steel pipe and ANSI B16.5 flanges. The modifications should incorporate appropriate pipe supports and hangers, documented within the piping isometrics and support drawings.
3. Pressure Relief Valve (PRV) System Upgrade: Replace the existing pressure relief valves on a 24-inch diameter gas header with new valves rated for 1500 psi, meeting API 526 standards. This includes the development of a revised PSV sizing calculation, procurement specification for the new valves, and updated safety instrument functional specifications.

**Discipline: Instrumentation & Controls**

1. Flow Meter Installation: Install three new Coriolis flow meters (specify make and model based on desired accuracy and flow rate) on liquid hydrocarbon streams entering the process unit. This involves developing instrument loop diagrams, specifying junction boxes and cabling, creating detailed installation instructions and commissioning procedures complying with ISA standards.
2. Safety Instrumented System (SIS) Upgrade: Upgrade the existing SIS logic solver and associated field instrumentation to meet current safety standards (e.g., IEC 61511). This encompasses detailed HAZOP review of the affected system, developing updated functional safety requirements, and selecting suitable replacement components, including programmable logic controllers (PLCs) and emergency shutdown valves. The deliverable shall include the updated SIS architecture and functional safety lifecycle documentation.
3. Level Measurement System Calibration: Calibrate all level transmitters (specify type, e.g., radar level transmitters) on storage tanks using traceable calibration equipment and documented procedures compliant with relevant ISO standards. The deliverables will include calibration certificates and updated instrument data sheets.

Cross-Disciplinary Tasks:

1. Piping & Instrumentation Integration: The piping and instrumentation teams will jointly verify the alignment of the new flow meters with the modified piping system, ensuring adequate space for installation, accessibility for maintenance, and preventing interference. This will involve regular cross-team meetings and collaborative review of drawings to prevent conflicts.
2. HAZOP Study Integration: Both teams will participate in a HAZOP study for the entire modified system, particularly focusing on the integration of the new instrumentation with the upgraded piping system. This will ensure that the modifications maintain or improve overall process safety.

Complexity Impact Note: The project complexity (3/5) is influenced by the need for rerouting existing pipelines, integrating new instrumentation systems, and addressing associated safety requirements, but does not involve highly complex process changes or novel technologies.

## REQUEST FOR QUOTATION

Request for Quotation (RFQ): Refine Janice Plant Expansion

**Project Name: Refine Janice Plant Expansion**

**Location: Refinery Zone, Lake Janice, KY**

**Industry: Oil & Gas**

**Date: April 9, 2025**

**Project Goal: Upgrade existing oil & gas processing facility to increase throughput and improve safety, adhering to API and EPA standards. This RFQ focuses on piping, pipeline, instrumentation, and control upgrades.**

**Scope of Work: The project encompasses the following key activities:**

**Piping & Pipeline:**

**1. 500-meter reroute of a 12-inch diameter, API 5L X65 liquid hydrocarbon pipeline (isometric drawings, pipe stress analysis per ASME B31.4, BOM, welding specifications, API 653 compliance).**

**2. Process piping modification to accommodate a new heat exchanger (3D modeling, 6-inch schedule 40 carbon steel pipe, ANSI B16.5 flanges, pipe support drawings).**

**3. Pressure relief valve (PRV) system upgrade on a 24-inch diameter gas header (PSV sizing calculation, procurement specification for 1500 psi valves meeting API 526).**

Instrumentation & Controls:

**1. Installation of three Coriolis flow meters (specify make/model) on liquid hydrocarbon streams (instrument loop diagrams, junction box/cabling specifications, installation/commissioning procedures complying with ISA standards).**

**2. Safety Instrumented System (SIS) upgrade (HAZOP review, updated functional safety requirements, PLC/ESD valve selection, updated SIS architecture & lifecycle documentation, IEC 61511 compliance).**

**3. Calibration of all level transmitters (specify type, e.g., radar) on storage tanks (calibration certificates, updated instrument data sheets, ISO compliance).**

Cross-Disciplinary Tasks:

**1. Piping & instrumentation integration (joint verification of alignment, accessibility, and interference prevention).**

**2. HAZOP study integration for the entire modified system.**

**Requirements:**

**1. Qualifications: Minimum 3 years' experience in the Oil & Gas industry with proven regulatory compliance (API, EPA, ASME, ISA, IEC).**

**2. Proposal: Technical design (1-2 pages) & detailed cost breakdown.**

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

**4. Contract Type: Time & Materials.**

**Timeline:**

* **RFQ Release: April 9, 2025**
* **Questions Due: May 7, 2025**
* **Proposals Due: May 17, 2025**
* **Project Start: May 20, 2025**
* Project Duration: 17 months

Submit Proposals to: procurement@oil&gas.com

## CONTACT

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## TIMELINE

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