



SOUTH TEXAS WATER AUTHORITY

2302 E. SAGE RD.

KINGSVILLE, TEXAS 78363

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Invitation to Bid

South Texas Water Authority will be accepting bids for the following:

42" Bar-Wrapped Pipe (AWWA C303) - Mechanical Fitting Condition Assessment

Submit bids by 5 pm October 28, 2025 to South Texas Water Authority, 2302 E. Sage Road, Kingsville, Texas 78363 or email to info@stwa.org. Specifications, additional information, and bid forms may be obtained at the above stated address or by calling (361) 592-9323 or .692-0337.

THE SOUTH TEXAS WATER AUTHORITY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS.

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(361) 592-9323 Or (361) 692-0337 (C.C. line) Fax: (361) 592-5965

Scope of Work – Mechanical Fitting Assessment

Client: South Texas Water Authority (STWA)

Project: 42" Bar-Wrapped Pipe (AWWA C303) – Mechanical Fitting Condition Assessment

Project Overview

The scope of work includes performing a mechanical assessment of fittings on the STWA 42-inch bar-wrapped pipeline (AWWA C303-78), with specific attention to the condition of Air Release Valves (ARVs) and Gate Valves. The objective is to identify any components requiring repair or replacement. The contractor shall also conduct a controlled operational assessment of five 42-inch Gate Valves to evaluate their functionality. Prior to exercising the valves, the contractor is responsible for performing a visual and mechanical inspection of critical components - including bolts, nuts, and joint connections - to confirm their suitability for operation exercise.

Assessment Coverage

- **25 Air Release Valves (ARVs)**
 - Type 2: Dual-body combination air valves with surge check valves (CSV)
- **5 Gate Valves**
 - 42" Gate Valves directly connected to the main pipeline

Scope of Work

The selected contractor shall provide all labor, equipment, materials, and expertise necessary to perform the following:

Cleaning and Preparation:

- All ARVs, Gate Valves, and associated valve chambers must be cleaned using pressure washing equipment to remove dirt, debris, and obstructions.
- This will ensure safe access and clear visibility for the assessment process.

Visual and Mechanical Condition Assessment

- Each valve and its connection to the pipeline must be inspected for signs of:
 - **Corrosion**
 - **Leakage**
 - **Mechanical wear or damage**
 - **Loose or missing bolts, nuts, and gaskets**
- The inspection should include all accessible parts of the fittings and associated appurtenances.

- Photographs (360-degree angle), videos (360-degree angle), and field notes must be recorded for documentation.

Operational Assessment – Gate Valves

- A controlled exercise (open/close operation) should be conducted on the five 42" Gate Valves.
- Prior to operation, a safety and integrity check must be performed to confirm that each valve is suitable for exercise.
- Valves should be operated using an external manual device with preset torque and pressure settings to avoid damage or overstress.
- Coordination with STWA Operations will be required to ensure proper system integration and avoid service disruptions.
- Coordination with the Engineers of Record is required prior to initiating any valve exercise.
- If there is any indication of potential valve failure, the exercise must be postponed. Final authorization to proceed must be obtained from both the STWA Operations Team and the Engineers of Record.

Data Collection

- A final report must be provided summarizing:
 - Observations and condition of each ARV and Gate Valve
 - **Measurement of metal thickness** for flanges, nuts, and bolts on the ARVs and Gate Valves
 - Identification of valves and fittings requiring **repair or replacement**
 - Prioritization of corrective actions
 - Cost estimates for repairs or replacements based on current market rates for each item
 - Pictures must be clearly label to understand the position at which the picture is taken. Also, any deficiencies identified must be clearly noted and labeled in picture

Site Preparation for Future Work

- The site should be left in a condition suitable for follow-up structural inspections or repair work.
- Field supervision must be provided throughout the assessment to ensure quality and support client representatives as needed.

Deliverables

- Full condition assessment report (PDF)
- Photo and video documentation
- Summary table of inspection findings Following should be included

- **Measurement of metal thickness** for flanges, nuts, and bolts
 - **Nut bolt thread condition**
 - **Material of the nuts and bolts**
 - **Performance results of 42" Valve exercise**
- List of recommended repair/replacement parts with estimated costs

Safety and Coordination

- All work will be conducted in compliance with applicable safety standards.
- Coordination with STWA staff will be required throughout the assessment process, especially during valve operation and system access.

Recommended Bidder Qualifications

Bidders must demonstrate:

- Experience with large-diameter water pipeline systems and AWWA C303 pipes.
- Proven expertise in mechanical inspection of valves and fittings on large water transmission line (42 inches or larger).
- Qualified field inspection team with relevant certifications and experience on water transmission and distribution line projects.
- References from similar water line projects.

Expected Engineering Cost Recommendations

- The assessment scope currently includes **25 Air Release Valves (ARVs)** and **5 Gate Valves**, based on available records (Reference STWA Diamond Map)
- **Note:** A comprehensive inspection of the ARVs has not been conducted in the past 40 years.
- Should the actual number of fittings differ from these quantities, the total project cost will be adjusted accordingly.
- The pricing to be provided **on a per-unit basis** for both ARVs and Gate Valves.
- This unit pricing should then be **multiplied by the confirmed quantity** following inspection, allowing for flexible and transparent cost adjustments.

Attachment for Bidders

To support a clear understanding of the existing system, the following information will be made available to all bidders:

- **ARV Specification Sheet** – Details for dual-body combination air valves with surge check valves (CSV)
- **ARV Construction Drawings** – Design and installation details of existing ARV assemblies
- **Recent Site Photos** – Images of current ARV and gate valve conditions
- **GIS Coordinates** – Precise locations of all ARVs and gate valves
- **Pipeline Construction Drawings** – Available upon request to support further technical review.