

NORTH CHARLESTON SEWER DISTRICT INVITATION FOR BID

TITLE: Construction Turkey Creek PS Upgrade (Valve Procurement) CIP# 2451000

BID CLOSING DATE: Sealed Bids shall be accepted no later than **September 18, 2024, at 2:00 p.m.** at the North Charleston Sewer District administrative offices, 7225 Stall Road, North Charleston, SC 29419

Bids may be delivered to: Purchasing Department
North Charleston Sewer District
7225 Stall Road
North Charleston, South Carolina 29406

Bids may be mailed to: Purchasing Department
North Charleston Sewer District
PO Box 63009
North Charleston, South Carolina 29419

MAIL IS ONLY PICKED UP FROM THE US POSTAL SERVICE ON MONDAYS AND THURSDAYS AROUND 10:30 A.M. (EXCLUDING WEEKENDS AND HOLIDAYS).

Direct Inquiries to: KIMBERLY J CAVER, Purchasing Manager
purchasing@ncsd.sc.gov

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Construction Turkey Creek PS Upgrade (Valve Procurement) #230420

1.0 INFORMATION & CONDITIONS

INTENT:

The North Charleston Sewer District has budgeted funds to replace station valving as part of the overall Turkey Creek Pump Station upgrade. This project is needed for the procurement of:

- Three (3) 24” Extended Service Knife Gate Valves valves,
- Three (3) 20” Rubber Flapper Swing Check Valves
- Three (3) 20” Full Port Eccentric Plug Valves

This document includes the specifications for each valve and hardware as part of the Turkey Creek Pump Station Upgrade.

VEHICLE CODES:

N/A

DESCRIPTIVE MATERIALS:

Your bid proposal package should include complete description and specifications of equipment you propose to furnish, including, but not limited to descriptive literature, and any other pertinent information.

2.0 DELIVERY

Valves shall be delivered in palletized form. Containers shall contain complete, and good working order valves, and include all pertinent hardware.

DELIVERY SITE:

North Charleston Sewer District, 7225 Building C Stall Rd., North Charleston, SC 29419.

3.0 WARRANTY, SERVICE, ETC.

Manufacturer shall warrant to the North Charleston Sewer District that each valve shall be warranted by the manufacturer for defects in materials and workmanship for a period of two years (24 months) from date of receipt.

4.0 MINIMUM SPECIFICATIONS

24" Extended Service Knife Gate Valve – For full specs, See Appendix 1.0

20" Rubber Flapper Swing Check Valve – For full specs, See Appendix 1.1

20" Full Port Eccentric Plug Valve – For full specs, See Appendix 1.2

5.0 SUPPLEMENTAL GENERAL CONDITIONS

Miscellaneous: A bid shall include the price of individual items in conjunction with the anticipated lead times of delivery. The issuance of the Purchase Order for the winning bid will be awarded by October 13th, 2024. The issuance will be pending the approval of the North Charleston Sewer District Commission on October 11th, 2024.

AWARD CRITERIA

The award will be made to the BEST VALUE bidder whose proposal conforming to the invitation will be most advantageous to the North Charleston Sewer District. Price, Lead Time, and other factors will be considered for the party in which the project is awarded.

North Charleston Sewer District reserves the right to reject any or all offers and to waive informalities and minor irregularities in offers received.

Cooperative contracts may be considered as bids.

BID PREPARATION

Bid proposals must be written in ink or typewritten and shall be submitted on the forms issued. Unsigned bids will not be accepted. No bid may be considered if received after the time shown on Title Page. Vendors are expected to examine all instructions, specifications, drawings, installations, etc. Failure to do so will be at the Vendor's risk. Erasures or other changes must be initialed by the person signing the bid.

Envelopes containing bids must be sealed and should be marked in the lower left-hand corner **“Construction Turkey Creek PS Upgrade (Valve Procurement) #2451000”**.

BIDDER ELIGIBILITY

Bids will only be accepted from manufacturers, authorized distributors or dealers, who are actively engaged in the sale, manufacture, or type of construction of the item(s) called for in the bid. No proposal will be accepted from or contract awarded to any person, firm, or corporation that is in arrears or is in default to North Charleston Sewer District upon any debt or contract, or that is a defaulter, as surety or otherwise, upon any obligation to North Charleston Sewer District or had failed to perform faithfully any previous contract with North Charleston Sewer District

BIDS BINDING 15 DAYS

Unless otherwise specified, all formal bids submitted shall be binding for fifteen (15) calendar days following bid-opening date.

INTERPRETATION

If any person contemplating the submission of a bid on this invitation is in doubt as to the true meaning of any part of the plans, specifications, or other documents, he should submit a written request for an interpretation thereof to the Purchasing Manager prior to **September 11, 2024, at 10:00am**. An interpretation of the bid invitation document will be made only by written addendum. **NORTH CHARLESTON SEWER DISTRICT WILL NOT BE RESPONSIBLE FOR EXPLANATIONS OR INTERPRETATIONS OF BID INVITATION DOCUMENTS EXCEPT AS ISSUED IN ACCORDANCE HERewith.**

OBSERVANCE OF LAWS

The Contractor at all times shall observe and comply with all Federal, State, and City laws, bylaws, ordinances and regulations in any manner affecting the conduct of the work or applying to employees on the project, as well as all orders or decrees which have been promulgated or enacted, by any legal bodies or tribunals having authority or jurisdiction over the work, materials, employees, or contract.

PATENTS

The Contractor agrees to indemnify and save harmless North Charleston Sewer District, and all personnel from all suits and actions of every nature and description brought against them or any of them, for or on account of the use of patented appliances, products, or processes, and he shall pay all royalties and charges which are legal and equitable. Evidence of such payment or satisfaction

shall be submitted upon request of North Charleston Sewer District as a necessary requirement in connection with the final execution of any contract in which such patented appliances, products, or processes are used.

PRICES

All prices are based on delivery to the destination designated in the invitation including packing charges. Machines, equipment and vehicles shall be fully assembled, serviced, and ready for use. Construction and service prices shall include all labor, material, and tools to complete or perform the required work. Any discounts for payment (Invoicing Terms) should be entered on the proposal page and will be considered in the evaluation.

Unless lump sum is specifically requested, unit and extended prices should be given. Failure to do so may cause bid to be rejected. In all cases, the unit price shall govern.

SAFETY

All practices, materials, and equipment shall comply with the Federal Occupational Safety and Health Act, as well as any pertinent Federal, State and/or local Safety or Environmental Codes.

SPECIFICATIONS AND PRODUCT DESCRIPTION

When brand names, model numbers, trade names, catalog numbers, or cuts are listed, they are, unless otherwise specified, included for the purpose of furnishing bidders with information concerning the style, type or kind or article designed and a bidder may offer an article which he certifies to be equal in quality, performance, and other essential characteristics. Any available printed material or literature which describes the product being offered for sale shall be included with the bid. North Charleston Sewer District shall be the sole judge of suitability of substitutes offered. When a formal numbered specification is referred to in this invitation, no deviation will be permitted, and the bidder will be required to furnish articles in conformity with that specification.

TAXES

North Charleston Sewer District is not exempt from payment of State Sales and Use Tax on all tangible personal property purchased or leased for its use or consumption.

PP1 BID PROPOSAL AND REQUIRED SUBMITTAL PAGES

In compliance with Invitation for Bid **Construction Turkey Creek PS Upgrade (Valve Procurement) #2451000** and subject to all conditions thereof and attached hereto, the undersigned offers and agrees if this bid be accepted for furnish any and all of the items or services for the sum of:

ADDENDA: Bidder acknowledges receipt of the following Addenda:

Addendum No. _____ Date _____
 Addendum No. _____ Date _____

Item	Description	Quantity	Unit	Unit Price	Extended Price
1.	24" Extended Service Knife Gate Valves	3	EA		
2.	20" Rubber Flapper Swing Check Valves	3	EA		
3.	20" Full Port Eccentric Plug Valve	3	EA		
4.	Freight	-	LS		
5.	Taxes	-	LS		
6.					
7.					
	TOTAL				

Brand/Model of Item(s) Bid _____

Required Delivery Date: 180 ARO Indicate delivery date _____

Early payment discount terms are _____ days. (If this blank is not filled in, it is understood to be Net 30 days.) Time allowed for cash discounts will be figured from date received of properly executed invoice forms or date of delivery, whichever is later.

My signature certifies that the accompanying bid in all respects is legal and fair, submitted in good faith, without collusion or fraud. I hereby certify that I am authorized to sign this bid for the BIDDER.

COMPANY NAME

ADDRESS

SIGNATURE

DATE

SIGNATURE (Printed)

TITLE

PHONE

EMAIL

Appendix 1: Construction Turkey Creek PS Upgrade (Valve Procurement)

1.0 Knife Gate Valve Specifications

DeZURIK KGC-ES CAST KNIFE GATE VALVES
ES MODEL (EXTENDED SERVICE LIFE)
SUGGESTED SPECIFICATION

APPLICATION DATA 35.01-5
Page 1
Dated July 2018
Supersedes October 1, 2014



All valves shall be model KGC-ES Cast Knife Gate Valves as manufactured by DeZURIK or approved equal.

Valve shall be the bonnetless knife gate type.

Gate side edges shall be machined, finished and rounded. The bottom edge shall have a 45 degree beveled knife edge. The gate faces shall be finish ground.

Exclusive Premium Packing System shall fit a rounded machined packing chamber. The Exclusive Premium Packing System shall consist of multiple layers of packing with anti-extrusion ring. The selected packing system shall be for _____ (wet) (dry) (high temperature) (food grade) service. The packing gland shall match the valve body or (specify). The fasteners shall be stainless steel or (specify).

Body shall be a one piece casting of type _____ (304) (316) (317) (254-SMO) (2205 Duplex) stainless steel, (Hastelloy C) or (Specify) for corrosive applications. Valve body shall incorporate cast-in guides and jams and can handle full reverse pressure without damage. Valve inside port diameter shall be equal to ASME B36.10 STD pipe inside diameter for both metal and resilient seated valves. Raised faces shall be full width per ASME B16.20 standards for spiral-wound gaskets. Valve body modifications such as bonnets, V-orifice and purges in the chest and/or seat area shall be available.

Seat shall be _____ (resilient) (metal) seated. Metal seated valves shall have a _____ (round) (V-orifice) port. Resilient seated valves shall have the resilient seat material molded on three sides of the stainless steel seat ring for installations where drip-tight shutoff is required. Resilient seat material shall be _____ (specify seat material).

Face-to-face dimension shall meet MSS SP-81 for knife gate valves.

Cold Working Pressure valve rating shall meet or exceed MSS SP-81. Valves shall be 150 psi (1030 kPa) for 2-48" (50mm-1200mm); 100 psi (690 kPa) available for 30" and 36"(750mm and 900mm).

Flange drilling shall be in accordance with _____ (ASME B16.5 class 150, 2-24"/50-600mm) (ASME 16.47 Series A class 150, 26" - 48"/650 mm - 1200 mm) (JIS 10) (DIN 10) (DIN 16) (ISO 7005-1/PN10) (ISO 7005-2/PN16) (BS 4504/PN10) (BS 4504/PN16) (AS2129 Table D) (AS2129 Table E) (SANS 1123-1000) or (SANS 1123-1600).

Actuation Manually actuated valves 2-12" (50 - 300mm) shall have _____ (chainwheel) (handwheel) (lever) (bevel gear) actuators. Valves 14-36" (350 - 900mm)

1.2 Check Valve Specifications

APCO CRF-100 RUBBER FLAPPER SWING
CHECK VALVE SUGGESTED SPECIFICATION



APPLICATION DATA 100.01-2

Page 1

June 8, 2017

Supersedes October 1, 2012

Rubber Flapper Swing Check Valves to be APCO model CRF (Body Style 100) as manufactured by DeZURIK, Inc. or pre-approved equal.

Body to be Ductile Iron ASTM A536 Grade 65-45-12 for sizes 2-24" (50-600mm) and Cast Iron ASTM A126 Grade B for sizes 30" (750mm) and larger.

Body Seat shall be on a 45 degree angle to the centerline of the pipe, permitting horizontal or vertical (flow up) installation. The valve shall be rated to 175 psi (1210 kPa) cold working pressure.

Rubber Flapper to have a steel disc encapsulated with Acrylonitrile-Butadiene (NBR), Chloroprene (CR), Terpolymer of Ethylene Propylene and A Diene (EPDM), or Fluoro Rubber (FKM). The flapper is captured between the body and valve cover to permit the disc to flex open and closed. An integral "o-ring" shall be molded onto the face of the rubber flapper for positive sealing.

Hinge Section of the rubber flapper shall be designed to accelerate closing due to an elastic spring effect. High-strength fabric shall be integrally molded in the rubber over the disc and bar to form a flexible joint giving the flapper a high cycle life.

Testing: Valve to be tested by the manufacturer as a complete assembly per AWWA C508.

Warranty: Valve shall be warranted by the manufacturer for defects in materials and workmanship for a period of two years (24 months) from date of shipment.

1.03 Eccentric Full-Port Plug Valve

DeZURIK PEF 100% PORT
ECCENTRIC PLUG VALVE
SUGGESTED SPECIFICATION

APPLICATION DATA 12.60-4
Page 1
Dated January 2020
Supersedes November 2019



SECTION 15100 ECCENTRIC PLUG VALVES

PART 1. GENERAL

1.1 SECTION INCLUDES

- A. Eccentric Plug valves, 3-60" (80-1500mm), of rectangular port construction with resilient faced cylindrical plugs eccentrically offset from the seat, for the purpose of providing isolation or throttling control as indicated.

1.2 REFERENCES

- A. ASTM A128 Class B "Gray Iron Castings for Valves, Flanges and Pipe Fittings"
- B. ASME B16.1 "Pipe Flanges and Flanged Fittings"
- C. AWWA C517 "Resilient-Seated Cast-Iron Eccentric Plug Valves"
- D. AWWA C111 "Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings"
- E. NSF/ANSI 61 "Drinking Water System Components - Health Effects"
- F. NSF/ANSI 372 "Drinking Water System Components - Lead Content"

1.3 SUBMITTALS

- A. Submit detailed product data and descriptive literature to include dimensions and materials of construction.
- B. Provide shop drawings to show installation arrangement of major component assemblies.

1.4 QUALITY ASSURANCE

- A. Supplier shall have been manufacturing eccentric plug valves for a period of at least ten years. At the engineer's request, supplier shall provide a list of installations involving equipment of similar size and application.
- B. Valves and Actuators shall be warranted by the manufacturer for defects in materials and workmanship for a period of two years (24 months) from date of shipment.
- C. Each valve and actuator shall be assembled, adjusted and tested as a unit by the valve manufacturer.

PART 2. PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. DeZURIK
 - 1. DeZURIK Eccentric Plug Valve.