SECTION 40_XX_XX
.5-3" (15-80mm) PEC ECCENTRIC PLUG VALVES

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:
   1. .5-3" (15-80mm) PEC Eccentric Plug Valves

B. Related Sections:
   1. (provided by the engineer)
   2. (provided by the engineer)
   3. (provided by the engineer)

1.02 REFERENCES

A. ASME B16.1 "Cast Iron Pipe Flanges and Flanged Fittings"
B. ASME B16.5 "Steel Pipe Flanges and Flanged Fittings"
C. ASME B16.42 "Ductile Iron Pipe Flanges and Flanged Fittings"
D. ASME B1.20.1 "Threaded End Connections Conform to the NPT Requirements"
E. AWWA C111 "Mechanical-joint end Connections Conform to AWWA C111"
D. AWWA C517 "Resilient-Seated Cast-Iron Eccentric Plug Valves"
G. AWWA C606 "Grooved Joint end Connections Conform to AWWA C606"

1.03 SUBMITTALS

A. (provided by the engineer)

1.04 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 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

2.01 GENERAL

A. (provided by the engineer)

2.02 .5-3" (15-80mm) PEC ECCENTRIC PLUG VALVES

A. Manufacturers: DeZURIK PEC or pre-approved equal
B. Design:
   1. Eccentric Plug Valve shall have a rectangular port with a solid one-piece plug and shaft design.
   2. General:

a. Design Maximum Working Pressure: 175 psi (1210 kPa)
b. Body port shall be rectangular with straight through flow allowing maximum capacity with minimal pressure drop. Round ports are not acceptable.
c. Bearings shall be sleeve type and made of sintered, oil impregnated and permanently lubricated type 316L Stainless Steel
d. Plug shall include upper and lower shaft in a one-piece casting. The plug shall have a cylindrical seating surface eccentrically offset from the center of the shaft. Plug shall not contact the seat until at least 90% closed. Spherical shaped plugs are not acceptable.
e. End Connections shall be flanged and drilled per ASME B16.1 or threaded connections that conform to NPT requirements of ASME B1.20.1

C. Materials:
1. Body & Cover: Cast Iron ASTM A126 Class B
2. Plug: 316 Stainless Steel ASTM A743 Grade CF8M
3. Bearings: Sintered 316 Stainless Steel ASTM A743 Grade CF8M
4. Plug Facing: Chloroprene (CR)
5. Grit Excluders: Polytetrafluoroethylene (PTFE)

D. Testing:
1. Certified test reports shall be available upon request.

PART 3 - EXECUTION

3.01 INSTALLATION

A. In applications of liquids with suspended solids or dirty gases:
1. For valves installed in a vertical pipeline, or where the possibility of overhead drain-back exists, install the valve with the seat at the top to prevent drain-back solids from settling into the valve body.
2. For valves installed in a horizontal pipeline, install the valve so the plug rotates up when opened. Install the valve with the higher pressure against the seat end of the valve.

B. In applications of clean liquids and gases for eccentric plug valves installed in a horizontal or vertical pipeline, it is recommended that the valve be installed with the higher pressure against the end opposite the seat.

3.01 COMMISSIONING

A. Field testing (verbiage by engineer)