# SPECIFICATION FOR THE FABRICATION
# OF
# PEOPLES NATURAL GAS'
# HIGH PRESSURE
# (740 psig MAOP)
# PRODUCTION METER SETS

May 2016

1. General
   1.1. Scope
   This document contains the specifications necessary to fabricate a high-pressure (740 psig MAOP) production station meter set for Peoples Natural Gas ("Peoples").

   1.2. Codes
   Peoples requires that all material, testing, and fabrication conform to or exceed the following codes:

   1.2.1. American National Standards Institute (ANSI)
   1.2.2. American Petroleum Institute (API)
   1.2.3. American Society for Testing and Materials (ASTM)
   1.2.4. The American Society of Mechanical Engineers (ASME)
   1.2.5. National Fuel Gas Code (NFGC)
   1.2.6. Minimum Federal Safety Standard 49, parts 191 and 192
   1.2.7. American Welding Society (AWS)

   1.3. Inspection
   Peoples reserves the right to inspect, at any time during normal business hours, the fabrication and or testing of the meter sets.

   1.4. Right to Reject Work
   Peoples reserves the right to reject any or all meter set assemblies, that in its opinion, do not conform to the required portions of this specification or any of the required codes listed above in Section 1.2.

2. Material
   2.1. Pipe and Pipe Nipples
   Pipe and pipe nipples shall be black, welded or seamless, Grade B, and conform to ASTM A 106 or ASTM A 53, see drawings for pipe schedule.

   2.2. Tubing
   Tubing shall be stainless steel grade 304 and shall conform to ASTM A 213 and ASTM A 450.

   2.3. Fittings (Threaded)
   All screw fittings shall be forged steel and conform to ANSI B16.11.

   2.4. Fittings (Welded)
   All forged welded fittings shall conform to ANSI B16.11.

2.5. Flanges

All steel pipe flanges shall conform to ANSI B16.5.

2.6. Pipe Joint Compound

2.6.1. Teflon Tape; Teflon tape may be used on all threaded joints. However, tape shall **not** be applied to the first two threads of any fitting prior to assembly.

2.6.2. Pipe joint compound shall be approved by Peoples.

2.7. Valves

2.7.1. Meter Stop Valves

All meter stop style valves shall be specified on the appropriate drawings.

2.7.2. Gate Valves

Gate valves shall be as specified on the appropriate drawings and conform to ANSI B 16.34. Gate valves shall be Kerotest Model M-1 or equal. Alternate suppliers must be approved by Peoples.

2.7.3. Valve Locking Mechanisms

All by-pass valves shall have a Locking Device or other means of securing the valve in a locked position using a standard padlock.

2.7.4. Check Valves

Check Valves will be steel body, disc type, threaded connection, soft seat, 740 WOG minimum. Preferred Suppliers:

2.7.4.1. Wheatley
2.7.4.2. Taylor Tools
2.7.4.3. Texstream
2.7.4.4. Other Suppliers shall be approved by Peoples

2.7.5. Ball Valves (2" and larger)

Peoples recommends that all ball valves be carbon steel body, 740 WOG, socket ends, 316 SS ball, stem, and trim with reinforced Teflon seats and in-line maintenance. Preferred Suppliers:

2.7.5.1. Jamesbury
2.7.5.2. Apollo
2.7.5.3. Watts
2.7.5.4. Worcester
2.7.5.5. Nibco
2.7.5.6. Stockham

2.7.5.7. Marpac
2.7.5.8. Other Suppliers shall be approved by Peoples

2.8. Meters

2.8.1. Meters will be chosen from Table 1.0 of this document, “Approved Meter Listing”.

2.8.2. A restricting orifice is required to prevent meter over spin, refer to drawing for details.

2.9. Regulators and Relief Valves

2.9.1. Regulators shall be supplied as specified on the drawings.

2.9.2. Relief valves shall be supplied as required on the appropriate drawings.

2.9.3. Preferred suppliers:
2.9.3.1. Fisher
2.9.3.2. Baird
2.9.3.3. Kunkle
2.9.3.4. Jayco

2.10. Heaters and Enclosures

2.10.1. Heaters should be non-electric start, catalytic type and be rated 1,300 BTU. On occasion, select heaters rated 2,600 BTU may be used.

2.10.2. Peoples recommends a stainless steel enclosure be used that encompasses the perimeter of the heater and utilizes a hinge and hasp system. The system should provide sufficient access to check oil levels without removing the enclosure. Access holes should be installed on both sides of the enclosure.

2.10.3. Heaters will not be required with meter sets utilizing the Invensys TP-9 model turbine meter.

2.10.4. An in-line filter upstream of the heater regulator(s) shall be provided to remove solids and liquids. Refer to drawing.

2.11. Welding

2.11.1. All welds shall be a full penetration butt weld or socket weld made in accordance with API-1104, latest edition. Manufacturer’s welding procedures shall be reviewed and approved by the Peoples Welding Engineer.

2.11.2. Welder’s qualifications shall be reviewed by Peoples.

2.12. Testing and Inspection

2.12.1. Peoples shall inspect at its discretion all or only a sample of the welds made on each meter set.

2.12.2. Inspection of welds shall be by radiographic, magna flux, or ultrasonic testing methods.

2.12.3. Costs of testing and inspection of welds will be the responsibility of Peoples.

2.12.4. Welds that are determined unsuitable by Peoples' Welding Engineer shall be repaired at no additional cost to Peoples.

2.12.5. Welds determined unsuitable and not repairable shall be reason for rejection of the entire meter set.

2.12.6. Each meter set shall be tested as specified on the appropriate drawing.

2.12.7. Proof of pressure test shall be supplied to the appropriate Peoples field supervisor.

2.12.8. Peoples reserves the right to conduct additional inspections and tests to determine compliance with these specifications.