PROCESS INDUSTRY PRACTICES

October 2017

Pipeline Systems

PIP PLSMV008
Carbon Steel Plug Valve Descriptions

PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

In an effort to minimize the cost of process industry facilities, this Practice has been prepared from the technical requirements in the existing standards of major industrial users, contractors, or standards organizations. By harmonizing these technical requirements into a single set of Practices, administrative, application, and engineering costs to both the purchaser and the manufacturer should be reduced. While this Practice is expected to incorporate the majority of requirements of most users, individual applications may involve requirements that will be appended to and take precedence over this Practice. Determinations concerning fitness for purpose and particular matters or application of the Practice to particular project or engineering situations should not be made solely on information contained in these materials. The use of trade names from time to time should not be viewed as an expression of preference but rather recognized as normal usage in the trade. Other brands having the same specifications are equally correct and may be substituted for those named. All Practices or guidelines are intended to be consistent with applicable laws and regulations including OSHA requirements. To the extent these Practices or guidelines should conflict with OSHA or other applicable laws or regulations, such laws or regulations must be followed. Consult an appropriate professional before applying or acting on any material contained in or suggested by the Practice.

This Practice is subject to revision at any time.

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PUBLISHING HISTORY

October 2017 Issued

Not printed with State funds

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Table of Contents

1. Scope

This Practice provides requirements for suppliers providing carbon steel plug valves included in PIP Pipeline Systems Line Class Material Specifications.

2. References

Applicable parts of the following Practice shall be considered an integral part of this Practice. The edition in effect on the date of contract award shall be used, except as otherwise noted. Short titles will be used herein where appropriate.

2.1 Process Industry Practices (PIP)

– PIP PLCM0004 – *Pipeline Systems Valve Commodity Codes Designator System*

3. Valve Designation System

3.1 For a full explanation of the format used to structure the valve numbers listed within this Practice, refer to *PIP PLCM0004.*

3.2 This Practice provides descriptions for two types of plug valves. Therefore, the first two characters following the Pipeline Systems identifier, L, in the valve numbers are PE or PL.

3.3 The valves listed in Section 5 and Section 6 of this Practice are sorted by the unique valve number designation in ascending alphanumeric sequence (e.g., LPE01CB500, LPE01CB501, LPE03CB500, LPL01CB500, LPL01CB501, LPL03CB500, LPL03CB501).

4. Notes

4.1 Occasionally, valve size ranges listed in this Practice are broader than the size ranges shown for the same valves on a given piping line class specification. While the “most common practice” has been used to specify valve size ranges on line class specifications, a purchaser may need to utilize a valve in a size outside this “common practice” choice. Thus, for reference purposes, the full size range for which a given valve is typically manufactured is shown in this Practice.

4.2 Gear operation may be specified in two ways: (a) Select the description in which the gear operator is already called out, or (b) Select the description in which a handwheel has been called out, and use Field 5 of the Valve Commodity Codes Designator System as described in *PIP PLCM0004*.

4.3 Many plug valve manufacturers offer numerous handle options (e.g., locking/nonlocking, latching/nonlatching, lever, wrench, tee). As a default, NPS 3 and smaller valve descriptions within this Practice specify a high hub lever with lockout. The purchaser shall specify a different handle option if one is required.

4.4 If fluids can be trapped (e.g., in double-seated valves) and subject to heating and subsequent expansion, means of pressure relief shall be considered to avoid excessive pressure build-up.

4.5 Because of current practice at many pipeline facilities, only NACE-compliant valves are specified. These valves are technically acceptable for both sweet and sour services. For use of non-NACE-compliant valves or for applications involving severe sour and corrosive services, engineering review is required.

4.6 Pressure and temperature rating can be limited by certain components (e.g. soft seats and seals) permitted by this Practice. Manufacturers' recommended pressure-temperature restrictions shall be consulted.

4.7 It is common pipeline practice to inject inhibitors and other chemicals for corrosion control. The manufacturer shall be consulted on the suitability of service under these conditions for all components (including soft seats and seals) permitted by this Practice.

5. Cross Reference

Valve Number	Applicable Line Classes (PLX-)
LPE01CB500	1CS5S01
LPE01CB501	1CS5S01
LPE03CB500	3CS5S01
LPE03CB501	3CS5S01
LPE06CB500	6CS5S01
LPE06CB501	6CS5S01
LPE09CB500	9CS5S01
LPE15CB500	15CS5S01
LPL01CB500	1CS5S01
LPL01CB500	1CS5S01
LPL01CB500	1CS5S01
LPL03CB500	3CS5S01
LPL03CB500	3CS5S01
LPL03CB500	3CS5S01
LPL03CB500	3CS5S01
LPL06CB500	6CS5S01
LPL06CB500	6CS5S01
LPL06CB500	6CS5S01
LPL09CB500	9CS5S01
LPL09CB500	9CS5S01
LPL15CB500	15CS5S01
LPL15CB500	15CS5S01