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| Version | Date | Description of Revisions |
| 1 | August 30, 2006 | Approved final document. |
| 2 | August 18, 2014 | First draft review comments (AV) |
| 3 | June 8, 2015 | Second Draft for Review (AV) |
| **4** | **September 16, 2015** | **Updated, Finalized Specification – Reference eDOCS #5823673-v5 (AV)** |
| 5 | May 25, 2017 | Updated references to standards ASME B16.5-2013, ASTM A193/A193M-16, ASTM A194/A194M-17, ASTM A216/A216M-16, ASTM D4894-15, ASTM D4895-16 **(AAM)** |
| 6 | August 16, 2017 | Removal of listed products (CPD, OMM) |

NOTE:

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**Notice:** This Document hardcopy must be used for reference purpose only.

**The on-line copy is the current version of the document.**

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| Item | Description |
| PTFE Lining | Poly (tetrafluorethylene) meeting the requirements of ASTM D4894-15 and ASTM D4895-16. Minimum lining thicknesses for nominal pipe sizes are as follows:  50 mm & smaller 1.6 mm thick  75 mm 2.0 mm thick  100 mm 2.4 mm thick  150 mm 3.2 mm thick |
| Pipe | PTFE-lined black carbon steel pipe seamless, ERW, or electric welded meeting requirements of ASTM A53/A53M-12 Type E or S, ASTM A106/A106M-15, ASTM A135/A135M-09(2014), or ASTM A587-96(2012).  Minimum Pipe Wall Thickness:  150 mm & smaller Schedule 40  *[Consultant to amend as required for other sized pipe and fittings]* |
| Fittings | ASME B16.5-2013, Class 150 flanged cast steel meeting requirements of ASTM A216/A216M-16, Grade WCB. |
| Pipe and Fitting Vents | Install 1.6 mm minimum to 3.2 mm maximum diameter vent holes in pipe wall: One vent hole every 900 mm along pipe rotated approximately 90 degrees to preceding vent; one vent every 450 mm along field-flared pipe rotated approximately 90 degrees to preceding vent; minimum of two vents per pipe spool; two vents 180 degrees apart located within 150 mm of each flange. Provide vent extensions to the outside of pipe insulation or other overwrap. Use 3.2 mm, 13,800 kPag or 20,700 kPag WOG, half couplings welded to pipe before lining is installed with 3.2 mm carbon steel pipe for vent. |
| Joints | Flanged |
| Flanges | ASME B16.5-2013, Class 150, carbon steel, Van Stone (lap joint), slip-on or socket-weld meeting the requirements of ASTM A105/A105M-14 or ASTM A181/A181M-14. Flange facing shall be molded or extended and flared pipe or fitting lining forming raised-face gasket surface. |
| Bolting | Stainless steel, ASTM A193/A193M-16, Grade B8M studs and ASTM A194/A194M-17, Grade 8M hex head nuts. |
| Gaskets | Tetrafluoroethylene (TFE) envelope, flat ring type.  When mating flange has flat face, provide filler gasket between outside diameter of raised-face flange liner and flange outside diameter to protect flange from excessive bolting moment. |

**END OF SECTION**