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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 #5823670-v3A (AV)** |
| 5 | May 25, 2017 | Updated references to standards ASTM A193/A193M-16, ASTM A194/A194M-17, ASTM A307-14e1, ASTM A351/A351M-16, ASTM D3261-16 **(AAM)** |
| 6 | August 16, 2017 | Removal of listed products (CPD, OMM) |

NOTE:

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

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| Item | Description | |
| General | Pipe lengths, fittings, and flanged connections to be joined by thermal butt-fusion shall be of the same type, grade, and class of polyethylene compound and supplied from the same raw material supplier. | |
| Pipe | ASTM D3350-14, high density polyethylene, maximum allowable hoop stress 5,500 kPa at 23 degrees Celsius.  Polyethylene resins shall conform to Type PE 3408 or better.  Protection shall be provided against ultraviolet light degradation using carbon black, a minimum of 2 percent well dispersed in the resin.  Pipe wall thickness shall reflect the required SDR\* and diameter, as shown in Table 8, ASTM F714-13.  Design Stress Rating: ASTM F714-13, 5,500 kPa hydrostatic.  Pressure Rating (kPa) SDR\*  375 9.0  1100 11.0  890 13.5  687 17.0  550 21.0  450 26.0  350 32.5  \* SDR: standard dimension ratio = OD/thickness | |
| Fittings | 150 mm & smaller | Molded fittings, butt fusion joined, conforming to the requirements of ASTM D3261-16. |
| 200 mm & larger | Same as pipe, butt fusion joined, conforming to the requirements of ASTM D3350-14.  All fittings shall have same pressure rating as pipe, unless otherwise noted in the Contract Documents. |
| Flanges | [Van Stone type, cast ASTM A351/A351M-16, Type 316 stainless steel backing ring, NSF 61]  [Van Stone type, cast ASTM A536-84(2014) (65/45/12), ductile iron backing ring, NSF 61] for bolting in accordance with ASTM D2513; ASTM D3261; ASTM F2880; ANSI/ASME B16.1-2010, Class 125; ASME B16.5-2013, Class 150; and AWWA C207-13, Class E. Pressure performance of the backing ring shall be equal to SDR rating of the pipe with safety factor of two. Stub ends shall be the same grade HDPE and pressure rating as pipe. | |
| Bolting | General Conditions: Carbon steel, ASTM A307-14e1 Grade B square head bolts and ASTM A563-07a(2014) Grade A heavy hex head nuts.  Corrosive Conditions: Stainless steel, ASTM A193/A193M-16 Grade B8M studs and ASTM A194/A194M-17 Grade 8M hex head nuts.  Washers shall be same material as bolts. | |
| Gaskets | Flat ring, 3 mm ethylene propylene rubber (EPR). | |

**END OF SECTION**