



**Summary of Substantive Changes  
between the 2014 and the 2015 editions of  
NSF/ANSI 14, “Plastics Piping System Components and Related Materials”**

**Presented to the IAPMO Standards Review Committee on April 13, 2015**

**General:** The changes to this standard might have an impact on currently listed products. The significant changes are:

- Removed Method B from the verification of chlorine resistance classification of solid wall pipe with an optional inner or outer polymeric layer, for a dependent transfer listing (see Section 5.7).
- Revised the method of checking for cracks following the stress corrosion resistance test (see Section 5.8.2).
- Tables 2 through 35 were revised; however, they have manufacturing quality-control requirements that are not part of IAPMO’s testing and certification procedures and therefore are not considered for listing products to NSF 14.

Section 2, Normative references: The referenced standards were updated to indicate the current editions and the following standards were added or removed:

[ASME A112.4.14-2004. Manually Operated, Quarter-Turn Shutoff Valves for Use in Plumbing Systems](#)  
[ANSI/ASSE 1049 – 2009. Performance Requirements for Individual and Branch Type Air Admittance Valves for Chemical Waste Systems](#)

~~[ASTM D1527-2005. Standard Specification for Acrylonitrile-Butadiene-Styrene \(ABS\) Plastic Pipe, Schedules 40 and 805](#)~~

~~[ASTM D2751-05. Standard Specification for Acrylonitrile-Butadiene-Styrene \(ABS\) Sewer Pipe and Fittings](#)~~

[ASTM F2806 – 10e1. Standard Specification for Acrylonitrile Butadiene Styrene \(ABS\) Plastic Pipe \(Metric SDR PR\)](#)

[ASTM F2929 – 13. Standard Specification for Crosslinked Polyethylene \(PEX\) Tubing of 0.070 in. Wall and Fittings for Radiant Heating Systems up to 75 psig](#)

[ASTM F2969– 12. Standard Specification for Acrylonitrile-Butadiene-Styrene \(ABS\) IPS Dimensioned Pressure Pipe](#)

5.7 Chlorine resistance – dependent transfer listing requirements: Removed Method B, from the verification of chlorine resistance classification, of the solid wall pipe with optional inner or outer polymeric layer, for a dependent transfer listing as follows:

*5. 7 .1, Solid wall pipe with optional inner or outer polymeric layer*

**Method A:**

*-three (3) data points at one hoop stress level at one of the temperature conditions as for the original data set;*

*-two (2) data points at a second hoop stress level at least 80 psi lower than the first stress level and at the same temperature conditions as for the first stress level;*

*-the 95% lower prediction limit (LPL) shall be calculated for the original material data at these temperatures/stress conditions;*

*-all five (5) data points (failure times) shall meet or exceed the LPL for that condition.*

**Method B:**



~~Other sets of data, using at least 2 of the same temperatures as the original data set and meeting the following requirements:~~

- ~~▪ minimum of 2 data points per temperature/hoop stress combination;~~
- ~~▪ minimum of 3 temperature/hoop stress combinations;~~
- ~~▪ one hoop stress level shall be at least 80 psi different than the others;~~
- ~~▪ the 95% lower prediction limit (LPL) shall be calculated for the original material data at these conditions;~~
- ~~▪ all data points (failure times) shall meet or exceed the LPL for their respective conditions; and~~
- ~~▪ all data points shall be added to the original data set and all parameters in Section 13 of ASTM F2023 shall be calculated. The new values shall comply with the requirements of ASTM F876.~~

Section 5.8.2, Stress corrosion resistance: Revised the method of checking for cracks following the stress corrosion resistance test as follows:

#### 5.8.2.3 Requirements

*There shall be no evidence of cracking when viewed with a microscope with a minimum magnification of 10X, with the exception of surface cracking. Surface cracking is defined as small imperfections that do not penetrate beyond the immediate surface of the part. For verification, the outer surface of the specimen shall be cross sectioned, polished with a wire brush to remove any oxide scale and then examined under a metallographic microscope for evidence of surface cracking.*

*Failure of one of the three specimens tested is cause for retest of three additional specimens. Failure of one specimen in the retest shall constitute failure in the test.*

Section 9, Quality assurance: Tables 2 through 35 were revised; however, they have manufacturing quality-control requirements that are not part of IAPMO's testing and certification procedures and therefore are not considered for listing products to NSF 14.

Table 2 – Minimum number of test specimens for a sample: Clarified that 5 samples are to be burst pressure tested at start-up and added the requirement that 1 sample is to be burst pressure tested during steady-state operation.

Table 5 – ABS pipe testing frequency: Changed the referenced product standards in the Potable Water column from ASTM D1527 and ASTM D2282 to ASTM F2806 and ASTM F2969, removed the column for Well Casing testing, and clarified that impact testing is not required for DWV pipe listed to CSA B181.1 only.

Table 8, Chlorinated poly (vinyl chloride) (CPVC) pipe test frequency: Added a footnote specifying additional burst pressure testing requirements if more than three extruders are in operation as follows: *burst pressure*<sup>1,2</sup>

<sup>2</sup> *If one compound is continuously used in several machines or sizes, when a steady-state operation is obtained on each machine the manufacturer shall choose one of the following sampling methods:*

*– Sample selection shall be from a different extruder each day and rotated in sequence among all machines or sizes. Refer to Table 2 for minimum sample size.*

*or*



*– If more than three extruders are in operation, the sample shall consist of a minimum of one specimen from each extruder and shall be burst tested every 12 hours (minimum of 8 samples). This option requires additional testing that option 1 when there are more than 3 extruders.*

Table 10A, PEX, PE-RT, PE-water, PE-storm sewer pipe and tubing test frequency: Added the additional referenced standard ASTM F2929 for PEX.

Table 12, PVC pipe test frequency: Added the additional referenced standard ASTM F679 for large diameter gravity PVC sewer pipe.

Table 13, PVC fittings and pipe bell ends test frequency: Added the additional referenced standard ASTM F679 for large diameter gravity PVC sewer pipe.

Table 21, Air admittance valve test frequency: Added a new column for testing air admittance valves for chemical waste systems in accordance with ASSE 1049.

The following new table was added for testing Elastomeric Seals for Joining Plastic Pipe in accordance with ASTM F477:

*Table 35 Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe*