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Joint Committee on Plastics and Recreational Vehicle Plumbing Components

September 23, 2024

Proposed revision to NSF/ANSI 14: *Plastics Piping System Components and Related Materials* (14i146r1)

Revision 1 of NSF/ANSI 14, issue 146 is being forwarded to the Joint Committee for consideration. Please review the proposal and **submit your ballot by October 14, 2024** via the NSF Online Workspace.

Please review all ballot materials. When adding comments, please include the section number applicable to your comment and add all comments under one comment number whenever possible. If you need additional space, please use the attached blank comment template in the reference documents and upload online via the browse function.

Purpose

The purpose of this ballot is to update Tables 9.30a, 9.30b, and 9.31 to harmonize with AWWA C900 and UL 1285, which allow burst pressure testing to be substituted by ring tensile testing.

Background

An issue paper (PLAS-2024-11) was submitted to update Tables 9.30a, 9.30b, and 9.31 to harmonize with AWWA C900 and UL 1285. Specifically, these standards allow burst pressure testing to be substituted by ring tensile testing. The proposed changes clarify that this is also an option for NSF/ANSI 14.

Please refer to the issue paper under Referenced Items for additional background information.

If you have any questions about the technical content of the ballot, you may contact me in care of:

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c/o Monica Milla
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[Note – The recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by gray highlighting. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard for Plastics —

Plastics Piping System Components and Related Materials

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9 Quality assurance

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9.10 Product-specific quality assurance requirements

Tables 9.2 through 9.40 provide product-specific quality assurance requirements.

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Table 9.30a
PVC pipe and fittings for underground fire service test frequency

Test	Pipe	Coupling	Gasket
pipe outside diameter	hourly	—	—
wall thickness	hourly	—	—
out-of-roundness [a]	hourly	—	—
sustained pressure test	semi-annually	annually	—
leakage	annually	annually	—
assembly test	annually	annually	—
flattening test	8 h	—	—
burst test [b]	3 mo	3 mo	—
extrusion quality test	annually	—	—
hydrostatic integrity	each [a]	each [a]	—
minimum tensile strength test	—	—	annually
ultimate elongation	—	—	annually
maximum set	—	—	annually
product standard(s)	UL 1285	UL 1285	UL 157

[a] Each length of pipe and each coupling shall be tested according to Section 4.3.3.3 of AWWA C900.
[b] Ring tensile may be used as a substitute for burst pressure per Section 23.1 of UL 1285.

Table 9.30b
PVCO pipe and fittings for underground fire service test frequency

Test	Pipe	Coupling	Gasket
pipe outside diameter	hourly	—	—
wall thickness	hourly	—	—
sustained pressure test	semi-annually	annually	—
leakage	annually	annually	—
assembly test	annually	annually	—
flattening test	8 h	—	—
burst test [b]	3 mo	3 mo	—
extrusion quality test	8 h	—	—
hydrostatic integrity	each [a]	each [a]	—
minimum tensile strength test	—	—	annually
ultimate elongation	—	—	annually
maximum set	—	—	annually
product standard(s)	UL 1285	UL 1285	UL 157

[a] Each length of pipe and each coupling shall be tested according to Section 4.3.4.4 of AWWA C909.
[b] Ring tensile may be used as a substitute for burst pressure per Section 23.1 of UL 1285.

Table 9.31
PVC pressure pipe and fabricated fittings for water transmission and distribution

Test	Pipe	Machined coupling	Fabricated fitting
dimension [a]	hourly	hourly	—
sustained pressure [b]	6 mo	—	—
burst pressure [a,d]	24 h	8 h	—
5 s hydrostatic proof [c]	every length	every coupling	—
flattening [a]	8 h	—	—
lap shear	—	—	every 200 fittings
pressure test – 2 hr	—	—	every 50 fittings
product standard(s)	AWWA C900	AWWA C900	AWWA C900

[a] Beginning of production of each material and size and thereafter one specimen from each extrusion outlet.

[b] Beginning of production specimens of 4 or 6 in, and 8 in and larger.

[c] Requirement does not apply for pipes that are not hydrostatically tested per AWWA C900 Section 5.1.14 and marked per Section 6.1.2.e.

[d] Ring tensile may be used as a substitute for burst pressure per Section 5.1.4 of AWWA C900.

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***Rationale*: AWWA C900 and UL 1285 allow burst pressure to be substituted by ring tensile. This change clarifies this substitution.**