NSF International

MEMORANDUM

TO: Joint Committee on Drinking Water Additives – System Components

FROM: France Lemieux, Chairperson

DATE: July 16, 2015

SUBJECT: Proposed revision to NSF/ANSI 61 – *Drinking water system components- Health effects* (61i125r1)

Draft 1 of NSF/ANSI 61 issue 125, is being forwarded to the Joint Committee for balloting. Please review the changes proposed to these standards and **submit your ballot by August 6, 2015** via the NSF Online Workspace.

Purpose

The purpose of this ballot is to revise the compositions of four of the stainless steels listed in Table C1 to match the material specifications in the ASTM product standards cited for them in the table.

Background

The issue was presented at the 2014 annual DWA-SC JC meeting on December 4, 2014, and the JC unanimously voted in favor of balloting the proposed revisions. Please see the JC meeting summary excerpt and the issue document (DWA-61-2014-9) under the referenced items for additional information.

Public Health Impact

This is a minor revision and will have no negative impact on public health.

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

Chairperson, Joint Committee
c/o Monica Leslie
Joint Committee Secretariat
NSF International
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E-mail mleslie@nsf.org

[Note – the changes are seen below using strikeout for removal of old text and gray highlights to show the suggested text. ONLY the highlighted text is within the scope of this ballot.]

NSF/ANSI Standard
for Drinking Water System Components – Health Effects

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Annex C

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Table C1 – Acceptable materials

Material	Specific designation	Standard (product) reference	Surface-area-to-volume ratio	End-use temperature	Composition
stainless steel	UNS S30400 (Type 304)	ASTM A 312 ASTM A 269 ASTM A 240	3,484 cm^2/L (540 in^2/L)	30 °C (86°F) 23°C (73°F)	percent composition: carbon (0.08 max.), manganese (2.00 max.), phosphorus (0.040~~5~~ max.), sulfur (0.030 max.), silicon (~~0.75~~ 1.00 max.), nickel (8.00-11.0), chromium (18.0-20.0), iron (balance)
stainless steel	UNS S30403 (Type 304L)	ASTM A 312 ASTM A 269 ASTM A 240	3,484 cm^2/L (540 in^2/L)	30 °C (86 °F) 23°C (73°F)	percent composition: carbon (0.035 max.), manganese (2.00 max.), phosphorus (0.040~~5~~ max.), sulfur (0.030 max.), silicon (~~0.75~~ 1.00 max.), nickel (8.00-13.0), chromium (18.0-20.0), iron (balance)

Table C1 – Acceptable materials

Material	Specific designation	Standard (product) reference	Surface-area-to-volume ratio	End-use temperature	Composition
stainless steel	UNS S31600 (Type 316)	ASTM A 312 ASTM A 269 ASTM A 240	3,484 cm^2/L (540 in^2/L)	30 °C (86 °F) 23°C (73°F)	percent composition: carbon (0.08 max.), manganese (2.00 max.), phosphorus (0.040~~5~~ max.), sulfur (0.030 max.), silicon (~~0.75~~ 1.00 max.), nickel (~~11~~10.00-14.0), chromium (16.0-18.0), molybdenum (2.0-3.0), iron (balance)
stainless steel	UNS S31603 (Type 316L)	ASTM A 312 ASTM A 269 ASTM A 240	3,484 cm^2/L (540 in^2/L)	30 °C (86 °F) 23°C (73°F)	percent composition: carbon (0.035 max.), manganese (2.00 max.), phosphorus (0.040~~5~~ max.), sulfur (0.030 max.), silicon (~~0.75~~ 1.00 max.), nickel (10.0-15.0), chromium (16.0-18.0), molybdenum (2.0-3.0), iron (balance)
stainless steel	UNS S32205 (Type 2205)	ASTM A 240 ASTM A 789 ASTM A 790 ASTM A 815	3,484 cm^2/L (540 in^2/L)	23°C (73°F)	percent composition: carbon (0.030 max.), manganese (2.00 max.), phosphorus (0.030 max.), sulfur (0.020 max.), silicon (1.0 max.), nickel (4.5-6.5), chromium (22.0-23.0), molybdenum (3.0-3.5), nitrogen (0.14-0.20)
stainless steel	UNS S32003 (Type 2203)	ASTM A 240 ASTM A 789 ASTM A 790 ASTM A 815	3,484 cm^2/L (540 in^2/L)	23°C (73°F)	percent composition: carbon (0.03 max.), manganese (2.0 max.), phosphorus (0.03 max.), sulfur (0.02 max.), silicon (1.00 max.), nickel (3.0-4.0), chromium (19.5-22.5), molybdenum (1.5-2.0), nitrogen (0.14-0.20) iron (balance)

Table C1 – Acceptable materials

Material	Specific designation	Standard (product) reference	Surface-area-to-volume ratio	End-use temperature	Composition
stainless steel	UNS S32101 (Type 2101)	ASTM A 240 ASTM A 789 ASTM A 790 ASTM A 815	3,484 cm^2/L (540 in^2/L)	23°C (73°F)	percent composition: carbon (0.040 max.), manganese (4.0-6.0 max.), phosphorus (0.04 max.), sulfur (0.03 max.), silicon (1.0 max.), nickel (1.35 –1.70), chromium (21.0 -22.0), molybdenum (0.1-0.8), nitrogen (0.2-0.25); copper (0.10- 0.80)
stainless steel	UNS S32304 (Type 2304)	ASTM A 240 ASTM A 789 ASTM A 790 ASTM A 815	3,484 cm^2/L (540 in^2/L)	23°C (73°F)	percent composition: carbon (0.030 max.), manganese (2.50 max.), phosphorus (0.040 max.), sulfur (0.030 max.), silicon (1.00 max.), nickel (3.0 – 5.5), chromium (21.5 -24.5), molybdenum (0.05 -0.60), nitrogen (0.05-0.20); copper (0.05- 0.60)
stainless steel	UNS S32202 (Type 2202)	ASTM A 240 ASTM A 789 ASTM A 790 ASTM A 815	3,484 cm^2/L (540 in^2/L)	23°C (73°F)	percent composition: carbon (0.030 max.), manganese (2.00 max.), phosphorus (0.040 max.), sulfur (0.010 max.), silicon (1.00 max.), nickel (1.00-2.80), chromium (21.5-24.0), molybdenum (0.45 max.), nitrogen (0.18-0.20); iron (balance)

Reason: Revised per 2014 DWA-SC JC meeting (December 4, 2014). Composition ranges extended to cover specifications in all product standards cited in the table for the materials.