



**Summary of Substantive Changes  
between the 2015 and the 2016 editions of  
NSF/ANSI 42 “Drinking Water Treatment Units - Aesthetic Effects”**

**Presented to the IAPMO Standards Review Committee on April 10, 2017**

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

- Revised the system conditioning requirement to specify the use of the test contaminant during conditioning (see Sections 7.3.1.6, 7.2.1.6.1, 7.2.1.6.2 and 7.2.1.6.3)
- Added a column for the Chemical Abstract Service (CAS) Number of the Analytes (See Table 4.1)
- Removed incorrect sampling plan copied from NSF/ANSI 53, requirements are already listed under Section 7.3.5.7 (see Annex E.4)

Section 7.3 Chemical reduction claims: Changed the system conditioning requirement to specify the use of the test contaminant during conditioning as indicated in the following example:

*7.3.1.6 Methods*

*Systems shall be conditioned using the test contaminant specified in table 7 and test water in 7.2.1.5. The conditioning volume shall be excluded from the volume measured as the influent challenge volume for capacity and sample point determination.*

The additional text in Section 7.3.1.6 was similarly applied in Sections

7.3.2.7;

7.3.3.7;

7.3.4.7;

7.3.5.7; and,

7.3.7.7.

*7.3.1.6.1 Plumbed-in systems without reservoirs and all faucet-mounted systems*

*Two systems shall be conditioned in accordance with the manufacturer's instructions and 7.3.1.6. using the appropriate general test water specified in 7.2.1.5. The systems shall be tested using the appropriate influent challenge at the manufacturer's rated service flow rate and an initial dynamic pressure of  $410 \pm 20$  kPa ( $60 \pm 3$  psig). The pressure shall not be readjusted, although the system may experience some change in dynamic pressure. The systems shall be operated on a 50%-on / 50%-off basis, 16 h per 24-h period, followed by an 8-h rest under pressure. A 10%-on / 90%-off cycle of operation may be used in testing if requested by the manufacturer.*

*7.3.1.6.2 Nonplumbed pour-through and batch systems*

*Two systems shall be conditioned in accordance with the manufacturer's instructions and 7.3.1.6.*



#### 7.3.1.6.3 POE systems

One system shall be conditioned in accordance with the manufacturer's instructions [and 7.3.1.6](#). The system shall be tested using the appropriate influent challenge at the manufacturer's rated service flow rate and an initial dynamic pressure of  $410 \pm 20$  kPa ( $60 \pm 3$  psig). The pressure shall not be readjusted, although the system may experience some change in dynamic pressure. The system shall be operated continuously 16 h per 24-h period followed by an 8-h rest under pressure.

(Revision of text in Sections 7.3.1.6.1, 7.3.1.6.2 and 7.3.1.6.3 were similarly revised in the following Sections:

7.3.1.6.2.3, 7.3.1.6.2.4, 7.3.1.6.3;  
7.3.2.7.1, 7.3.2.7.2, 7.3.2.7.2.3, 7.3.2.7.2.4, 7.3.2.7.3;  
7.3.3.7.1, 7.3.3.7.2, 7.3.3.7.2.3, 7.3.3.7.2.4, 7.3.3.7.3;  
7.3.4.7.1, 7.3.4.7.2, 7.3.4.7.2.3, 7.3.4.7.2.4, 7.3.4.7.3;  
7.3.5.7.1, 7.3.5.7.2, 7.3.5.7.2.3, 7.3.5.7.2.4, 7.3.5.7.3;  
7.3.6.7.2.3; and  
7.3.7.7.1, 7.3.7.7.2, 7.3.7.7.2.3, 7.3.7.7.2.4 7.3.7.7.3.

Table 4.1 – Extraction testing parameters: Added a column in Table 1 renumbered Table 4.1 for the Chemical Abstract Service (CAS) Number of the Analytes.

Annex E (normative); Test method for evaluating squeeze bottle drinking water treatment units: Removed incorrect sampling plan copied from NSF/ANSI 53, requirements are already listed under Section 7.3.5.7:

#### E.4 Sampling

~~For systems that include a performance indication device~~ Samples shall be collected from the first fill of the bottle, ~~and at 25, 50, 75, 100, and 120% of claimed capacity.~~ ~~For systems that do not include a performance indication device samples shall be collected from the first fill of the bottle, and at 50, 100, 150, 180, and 200% of capacity.~~ Effluent samples shall be collected from the entire volume dispensed during multiple sequential on/off cycles until the required volume for analysis is collected. Influent samples shall be collected from a sampling port located immediately prior to the test units connection.