Summary of Substantive Changes between the 2010 and 2011 editions of NSF/ANSI 42, “Drinking Water Treatment Units - Aesthetic Effects”

Presented to the IAPMO Standards Review Committee on August 13, 2012

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

- Removed the retesting requirement for contaminants that exceed the advisory concentration (Section 4.1.2 and Section 4.3.6)
- Removed the burst pressure test requirements (Section 5.4.4 and Table 5)
- Removed the filter media test from the minimum performance requirements (Section 6.11)

Section 4.1, Materials in contact with drinking water:
Section 4.1.2: The retesting requirement for contaminants that exceed the advisory concentration was removed as follows:

_The product shall be tested in accordance with 4.2.3. If the product does not impart a concentration of an extractable contaminant at a level that exceeds either the MCC, MDWL, or advisory concentrations in table 1, 2, or 4, the product shall be deemed to have met the requirements of 4. If the product does impart a concentration of an extractable contaminant at a level that exceeds the advisory concentration, but not the MCC or MDWL, the product shall be deemed to have met the requirements of 4, but the manufacturer shall be notified of the concentration of the extractable contaminant, and a new product sample(s) shall be immediately retested in accordance with 4.2.3.6. For the parameters in table 4, the required follow-up analyses shall also be performed after the product has been exposed according to 4.2.3.6, if they were not performed as part of the initial exposure under 4.2.3.2._

Section 4.2, Materials evaluation:
Section 4.2.3.6: Removed the retest for products with contaminants that exceed the advisory concentration as follows:

_If the level of an extractable contaminant exceeds an advisory concentration in table 1, 2, or 4, the 72-h test exposure sequence in 4.2.3.2 shall be repeated three times using a new product sample(s). The extractant water from the third 24-h exposure of the third 72-h exposure sequence shall be analyzed to determine whether the concentration of the extractable contaminant has been reduced to a concentration less than or equal to the advisory concentration._
Section 5.4.4, Burst test – nonmetallic pressure vessels: Removed the burst pressure test as follows:

The following procedure shall be used for the burst testing of nonmetallic pressure vessels:

a) A water temperature of 13 to 24 ºC (55 to 75ºF) shall be used. The test water shall be adjusted to a temperature at which condensation will not form on the surface of the test unit.

b) A complete unit shall be assembled as normally installed and operated.

c) The pressure vessel shall be connected to a water supply through a pump system with a pressure measurement device that has a method of indicating maximum pressure during a test, a check valve, a shut-off valve, and a drain valve. Threaded fittings shall be used for the system subject to the high pressure.

d) All remaining pressure vessel openings shall be closed by using threaded fittings where possible. The entire system shall be filled with water and flushed to purge air from the unit.

e) The hydrostatic pressure shall be raised until the burst pressure specified in table 5 is reached or the vessel fails at a lower pressure. The rate of pressure increase shall be no more than 690 kPa (100 psig) per second and shall be sufficient to reach the burst pressure within 70 s of the start of the test. The desired pressure shall be maintained for an instant and released.

Table 5, Structural integrity testing requirements: Removed the burst pressure test requirements from table 5.

Section 6.11, Media: Removed the filter media test from the minimum performance requirements.