Summary of Substantive Changes
between the 2019a and the 2020 editions of
ASTM F876 “Standard Specification for Crosslinked Polyethylene (PEX) Tubing”

Presented to the IAPMO Standards Review Committee on August 10, 2020

General: The changes to this standard might have an impact on currently listed products. The substantive change is:

- Added a requirement for oxidative stability in potable chlorinated water applications to comply with the first digit of “1” or higher in the PEX tubing material designation code (see Section 6.9)
- Added requirements for oxidative stability to accommodate outdoor weathering exposure (see Section 6.10)

Section 6.9, Oxidative Stability in Potable Chlorinated Water Applications: Added a requirement for oxidative stability in potable chlorinated water applications to comply with the first digit of “1” or higher in the PEX tubing material designation code as follows:

6.9 Oxidative Stability in Potable Chlorinated Water Applications—PEX tubing intended for use in the transport of potable water shall have a minimum extrapolated time-to-time failure of 50 years and comply with the requirements for a first digit of “1” or higher in the PEX Tubing Material Designation Code when tested and evaluated in accordance with 7.11.

Section 6.10, Oxidative Stability in Outdoor Weathering Exposure (UltraViolet): Added requirements for oxidative stability to accommodate outdoor weathering exposure as follows:

6.10 Oxidative Stability in Outdoor Weathering Exposure (UltraViolet)—PEX tubing intended for use in the transport of potable water shall comply with the requirements for a second digit of “1” or higher in the PEX Tubing Material Designation Code when tested and evaluated in accordance with Test Method F2657 where the decreased average failure time is less than or equal to 21%.

NOTE 5—Test Method F2657 provides a measure of the effects of natural sunlight ultraviolet exposure; however, outdoor weathering in accordance with Test Method F2657 requires open outside exposure that also includes incidental exposure to natural environmental conditions (cyclical temperature change, dust, precipitation, humidity, etc.). Accordingly, testing per Test Method F2657 incorporates weathering exposure during the measurement of UV resistance.