Summary of Substantive Changes
between the 2011b and the 2012 editions of
ASTM D2513, "Polyethylene (PE) Gas Pressure Pipe Tubing, and Fittings"

Presented to the IAPMO Standards Review Committee on April 9, 2012

General: The changes to this standard will require additional markings for currently listed products. The changes to the standard include:

- Test method ASTM D2837 was referenced in place of the (HDB) substantiation procedure (section 4.8); however, the test itself did not change.
- Added the requirement of marking in accordance with ASTM F2897 (section 7.6).

Section 2: Referenced Documents:
Section 2.1.4, Specification For: Changed the references as follows:
ASTM F2897 Specification for Tracking and Traceability Encoding System of Natural Gas Distribution Components (Pipe, Tubing, Fittings, Valves, and Appurtenances)

Section 4.8 Hydrostatic Design Basis (HDB) Substantiation: Referenced test method ASTM D2837 in place of the (HDB) substantiation procedure as follows:
The HDB for PE materials at 73°F (23°C) shall be substantiated ~~by showing that the extrapolation of the stress regression curve is linear to the 438 000-h intercept (long-term hydrostatic strength at~~ to be linear to 50 years ~~in accordance with~~ as per Test Method D2837, Section 5.7. ~~This will be done in accordance with Test Method D2837 using one of the two following procedures:~~

~~*4.8.1 Use the twelve data points from Conditions I and II obtained in 5.6.1 (Procedure I) of Test Method D2837 along with the 438 000-h intercept to solve for the three-coefficient rate process extrapolation equation. Then using this new model, calculate the mean estimated failure time for Condition III. When the log average time for six specimens tested at Condition III has reached this time, linear extrapolation of the 73°F (23°C) stress regression curve to 438 000 h is substantiated.*~~

~~*4.8.2 When 5.6.2 (Procedure II) of Test Method D2837 is used to validate the 73°F (23°C) HDB, linear extrapolation of the stress regression curve to 438 000 h is substantiated when the log average failure time of the test specimens at 176°F (80°C) surpasses 6000 h.*~~

Section 7.6: new:
All PE pipe, tubing, and fusion fittings meeting the requirements of this specification for gas distribution systems shall be marked with the 16-character gas distribution component tracking and traceability identifier in accordance with Specification F2897. The 16-character code shall be expressed in alphanumeric format and Code 128 bar code format with a minimum bar thickness value of 0.005 in. or an alternative 1D or 2D bar code symbology as agreed upon between manufacturer and end user. All fittings shall have the 16-character codes marked or affixed to the product, product packaging, or any manner agreed upon between manufacturer and end user.