Summary of Substantive Changes  
between the 2010 and the 2012e1 editions of  
ASTM D3035 “Polyethylene (PE) Plastic Pipe (DR-PR) Based on  
Controlled Outside Diameter”

Presented to the IAPMO Standards Review Committee on December 10, 2012

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

- Limited the polyethylene compounds suitable for use in the manufacture of pipe to PE1404, PE2708, PE3608, PE4608, and PE4710 and removed material designations PE2606, PE3708, PE3710, and PE4708 (see Section 5.1 and Tables 1, 4, 5, and 7).
- Added mandatory compliance with the requirements of NSF 14 or NSF 61 by moving the former supplementary requirement S1 to the body of the standard (see Section 5.2).

Section 2.3, Other: deleted referenced documents PPI TR-9 and added APWA as follows:
- PPI TR-9 Recommended Design Factors for Thermoplastic Pressure Pipe
- APWA Uniform Color Code

Section 3.2.1, relation between dimension ratio, hydrostatic design stress and pressure rating: revised the definition for S as follows:

\[ S = \text{hydrostatic design stress for water at 73°F (23°C), psi (MPa)} \]

Section 5, Materials: Revised sections 5.1, 5.2, and 5.3; added sections 5.1.1 and 5.1.2

Section 5.1, Polyethylene Compounds: Clarified the material requirements as follows:

*Polyethylene compounds suitable for use in the manufacture of pipe under this specification shall meet Specification D3350 as shown in Table 1 thermoplastic materials designation codes PE1404 or PE2708 or PE3608 or PE4608 or PE4710, and shall meet Table 1 requirements for PE1404 or PE2708 or PE3608 or PE4608 or PE4710, and shall meet thermal stability, brittleness temperature and elongation at break requirements in accordance with Specification D3350.*

Section 5.1.1, Color and Ultraviolet (UV) Stabilization: added to include the requirements formerly covered by footnote C of Table 1.

Section 5.1.2: Added the requirement that colors used on PE plastic pipe must comply with APWA Uniform Color Code.

Section 5.2, Potable Water Requirement: Compliance with NSF 14 or NSF 60 was added to the body of the standard. The requirement was formerly voluntary per the Supplementary Requirements (S1) and Note 1 of the 2010 edition.

Section 5.3, Reworked Material: Revised to clarify the allowable use of reworked material.
Section 9.1.5: Removed the following marking requirement;

*In accordance with 5.2, pipe that is intended to be suitable for use at 80°F (27°C) and below shall be marked, “80°F (27°C) max.”*

Section 9.2, Using Color: Added the following limitation to the use of coloring;

*Yellow identities gas and shall not be used.*

Section 9.3: Added the marking limitations as follows:

*marking that identify gas, communications or electrical use are prohibited.*

Table 1, Polyethylene Compound Requirements: Replaced the former Table 1, *Specification D3350 Cell Classifications for Polyethylene Pipe Materials*, with the following effect:

- Some of the cell classification specifications that were formerly listed in the table were replaced with the following compound property requirements.
  - HDB and HDS testing requirements formerly described in section 5.2 are now listed in Table 1;
- The information in former Note 3 and Note 4 was included as footnote A and footnote B in the new Table 1;
- The material designations PE2606, PE3708, PE3710, and PE4708 were removed as follows:

<table>
<thead>
<tr>
<th>PE-Material Designation Code Requirement</th>
<th>PE1404</th>
<th>PE2606</th>
<th>PE2708</th>
<th>PE3608</th>
<th>PE3708</th>
<th>PE3710</th>
<th>PE4608</th>
<th>PE4708</th>
<th>PE4710</th>
</tr>
</thead>
</table>

Table 4, The material designations PE2606, PE3708, PE3710, and PE4708 were removed as follows:

<table>
<thead>
<tr>
<th>Dimension Ratio</th>
<th>PE3608, PE3708, PE3710, PE4608, PE4708</th>
<th>Min Burst Pressure, A psi (MPa)</th>
<th>PE2606-PE2708</th>
<th>PE1404</th>
</tr>
</thead>
</table>

Tables 5, 7, and X1.1: The material designations PE2606, PE3708, PE3710, and PE4708 were removed.