



**Summary of Substantive Changes
between the 2012 and the 2013 editions of
ASME B16.51, “Copper and Copper Alloy Press-Connect Pressure Fittings”**

Presented to the IAPMO Standards Review Committee on September 8, 2014

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

- Added low lead requirements for fittings made of wrought and cast copper used in potable water applications (see Sections 6.1 and 6.2).

It is important to note that the new requirement in Section 6.1 appears to apply to all fittings intended for potable water applications; however, a strict interpretation of the way it is written indicates that the new requirement applies only to *Other coppers and copper alloys*.

Section 6, Material: Added low lead requirements as follows

6.1 Wrought Copper Alloys

- (a) *Fittings shall be made from copper UNS alloy number C10200, C12000, C12200 or C23000.*
- (b) *Other coppers and copper alloys shall be permitted, provided their chemical composition contains a minimum of 84% copper and a maximum of 16% zinc, and provided the fittings produced from the copper alloy meet all the mechanical and corrosion-resistant properties for the end purposes of the fittings. For potable water applications, fittings shall be produced from low lead (0.25% or less) copper alloys and shall meet all the mechanical and corrosion-resistant properties for the end purposes of the fittings. The composition of the copper alloy shall contain nothing that will inhibit joining to the tube or to other fittings.*

6.2 Cast Copper Alloys

- (a) *Castings intended for use in applications up to 204°C (400°F) shall be of a copper alloy produced to meet*
- (1) *the requirements of ASTM B62 UNS alloy number C83600, or*
- (2) *the chemical and tensile requirements of ASTM B584 UNS alloy number C83800 or C84400 and in all other respects the requirements of ASTM B62*
- (b) *Castings intended for use in potable water applications up to 93°C (200°F) shall be low lead (0.25% or less) and shall be*
- (1) *of a copper alloy produced to meet the requirements of ASTM B584 UNS alloy number C87850 or C89833, or*
- (2) *of other cast copper alloys, provided the fittings produced meet mechanical and corrosion-resistant properties needed for potable water application.*