Summary of Substantive Changes
between the 2013 and the 2008 editions of
MSS SP-80 "Bronze Gate, Globe, Angle and Check Valves"

Presented to the IAPMO Standards Review Committee on March 10, 2014

General: General: The changes to this standard should not have an impact on currently listed products. The substantive change is:

- Increased the maximum recommended pressure and temperature limitations for solder joint valves (see Table A1)

Annex A, Strength of Solder Joints: Increased the maximum recommended pressure-temperature limitations for solder joints made with copper tube and cast copper alloy fittings, using commercial solder as follows:

Table A1 Pressure-Temperature Limitations

Joining Material (d)	*Working Temperature (OF)*	*Maximum Working Pressure (psi)*		
		Size		
		1/4 through 1[(a)]	*1-1/4 through 2[(a)]*	*2-1/2 through 3[(a)]*
Alloy Sb5, 95-5 Tin-Antimony Solder[(b)]	*100*	*~~500~~1,090[(e)]*	*~~400~~850(f)*	*~~300~~750[(f)]*
	150	*~~400~~625[(g)]*	*~~350~~485(g)*	*~~275~~405[(g)]*
	200	*~~300~~505[(h)]*	*~~250~~365(g)*	*~~200~~325[(g)]*
	250	*~~200~~270*	*~~175~~210*	*~~150~~175*
Joining[(c)] Materials Melting at or above 1,100 °F	*Pressure-temperature ratings consistent with the materials and procedures employed*			

NOTES:
(a) Standard water tube sizes per ASTM B88.
(b) ASTM B32 Alloy Grade Sb5.
(c) These joining materials are defined as "brazing alloys" by the American Welding Society.
(d) The Safe Drinking Water Act, as Amended, prohibits any solder with a lead content in excess of0.2% for use on potable water systems.
(e) The solder joint exceeds the strength of Types L and M tube in drawn temper and Type K tube in annealed temper.
(f) The solder joint exceeds the strength of Types K, L and M tube in drawn and annealed tempers.
(g) The solder joint exceeds the strength of Type M tube in drawn temper and Type K and L tube in annealed temper.
(h) The solder joint exceeds the strength of Type L tube in annealed temper.