

November 26, 2007

TO: All Concerned

FROM: Jay Mundy, CIPE, CPD

SUBJECT: Gas Pipe Fittings – Acceptable – Prohibited

Chapter 12 of the 2006 UPC includes a number of major changes in gas piping requirements. Section 1211.3.2 and its Phoenix amendments address “connections” that are acceptable or prohibited as follows:

- (1) **Prohibited**: The following fittings are prohibited as a means of joining gas piping in a *concealed* location: ground joint unions; tubing fittings; bushings; and compression couplings. [NOTE: This does not include listed copper piping joints that are assembled using a means other than brazing.]
- (2) **Acceptable**: Concealed gas piping connections may be made by welding, or by use of left-right nipples and couplings, or heavy duty flanges. Piping concealed underground, or within an attic space, may be connected with a ground joint union that has been primed and taped as required by Installation Standard 13-2003. [NOTE: The purpose for this wrapping method is to prevent the union nut from loosening, thus resulting in a potential gas leak.]

Another item of interest is found in Section 1212.4. The long-standing requirement that gas shut-off valves be located within three (3) feet of the equipment served has now been extended to six (6) feet. This Section of the Code also makes reference to use of shutoff valves with a “nondisplaceable” valve member. This descriptive term is not found in the dictionary, but it appears that the correct term should have been “valves with non-displaceable *rotors* [rotating valve member (see attachment)].

Section 1212.7 would also require a “sediment trap” to be installed “as close to the inlet of the equipment as practical”. However, this Section appears to be offset by an earlier Section in the Code (Section 1211.7) that says, “Provide Drips Where Necessary. For *other than dry gas conditions*, a drip [drip leg] shall be provided at any point in the line of pipe where condensate could collect. Additional language in this Section leaves the determination of whether drip legs are necessary to the discretion of the Authority Having Jurisdiction. No drip legs will be necessary on gas piping systems installed in Phoenix.

An incidental error is found in Table 12-4. The specific gravity of undiluted propane is 1.52, not 1.24 as given in this Table.

