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Code/Section	2018 UPC Section 701.0, 2018 IPC Section 702.0
Approved:	Julie Belyeu, Building Official
Developed By:	David McCarthy, Mechanical Engineer
Revised By:	John Brean, Mechanical Engineer

Issue:

Several hospitals have requested using chlorinated polyvinyl chloride (CPVC) piping when replacing or adding building drain, waste, and vent systems. Due to owners experiencing extensive corrosion of cast iron piping used for general purpose sanitary drain applications within existing buildings, they would like to use a more corrosion resistant material. CPVC is a more durable material and will last longer and require less maintenance over time. This is important in minimizing disruption to patients and hospital functions.

CPVC is primarily used for potable cold and hot water distribution systems in buildings. CPVC is also used in locations where piping conveying industrial, chemical, or process wastes from a point of origin to sewer-connected pretreatment facilities are installed. These pretreatment devices are required to dilute liquid waste materials prior to entering the normal building drain.

There are several features that make CPVC pipe desirable for use in a building drain system. It offers greater strength than PVC piping, is more flexible, is immune to galvanic corrosion, and resists scale buildup. It also has fire resistant features and chemical resistant qualities.

Interpretation:

CPVC is an approved material for building drain, waste, and vent systems in the City of Phoenix when the piping is in compliance with the following stipulations.

1. Fittings shall be compatible with the type of pipe used and be drainage-pattern.
2. Piping exposed in ducts or plenums shall have a maximum flame-spread index of 25 and a smoke-developed index of 50 where tested in accordance with ASTM E 84 and UL 723. (2018 IMC 602.2.1.7)
3. Piping shall be verified to be chemical-resistant to any liquid wastes that enter the system.
4. All other applicable requirements of the adopted plumbing codes for sizing and installation apply.
5. CPVC-DWV pipe and fittings shall conform to CSA B181.2 for drainage systems. (2018 IPC Referenced Standards)
6. CPVC-DWV pipe and fittings shall conform to ASTM F2618 for chemical waste systems. (2018 UPC Section 811.2, Referenced Standards)