



**Development Services
Building Division**

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POLICY AND PROCEDURE STATEMENT

BDP-16-01 Prohibition on the Use of Cellular Core PVC or ABS Piping as Exhaust Vent Piping for Fuel-fired Combustion Appliances

PURPOSE: To clarify the prohibition of use of cellular core PVC or ABS piping as exhaust vent piping on fuel-fired combustion appliances

ISSUE: Information from product listing agencies, product manufacturer's, and a licensed plumbing engineer serving as committee chair for the International Code Council's Residential Plumbing and Mechanical Committee has demonstrated that the use of cellular core PVC piping for exhaust vent piping is not compliant with the requirements of the International Residential Code, has been reported to have failed and caused life-threatening conditions, and has been specifically warned against by the major manufacturers of such pipe, warranting the prohibition of the use of such pipe for vent piping on fuel-fired combustion appliances.

EVIDENCE: The CSA, a world recognized and code approved product testing and listing agency recently provided guidance concerning the use of cellular core PVC piping for venting of fuel-fired combustion appliances stating that "the use of [cell core vent pipe] as a vent pipe for combustion products is no longer permitted in the US and Canada. There have been reported instances of this material failing in the field and releasing carbon monoxide into the living space...At this point all manufacturers of these products should have amended their instruction manuals to reflect this change."

The Supplemental Information to the installation instructions for one of the largest manufacturers of cell core PVC piping, Charlotte Pipe, states "Never use PVC or ABS cellular core pipe for combustion gas venting". Information from other pipe manufacturers provides similar directives.

The Chairman of the ICC's Residential Plumbing and Mechanical Committee indicates states that there is no listing or testing of cellular core piping for use as combustion vent piping and he attributes the death of a family of four in Aspen in 2008 to carbon monoxide poisoning occurring as a result of failed cellular core PVC combustion vent piping. He further states that requirements within the codes that products, including cellular core PVC vent piping, be tested, listed and labeled for their intended use, have not been met by this product. He also states that he has personally witnessed failures and degradation of this product in the field when used in this manner.

POLICY BDP-16-01 (Effective June 20, 2016 and thereafter):

1. The use of cellular core PVC or ABS piping for conveyance of exhaust combustion product from fuel-fired appliances will not be approved by the City of Loveland Building Division. Effective June 20, 2016, the Building Division will disapprove all rough mechanical and/or plumbing inspections for fuel-fired combustion exhaust venting systems incorporating cellular core PVC or ABS piping. Those structures with fully approved

rough mechanical and/or plumbing inspections of systems as of close of business on June 17, 2016, which have incorporated cellular core PVC or ABS pipe will be exempt from this policy.

2. This policy is not intended to prevent the use of solid PVC or ABS piping not of cellular core construction for venting of fuel-fired combustion appliances.