

Proposed Changes to the 2006 Plumbing Code

March 2008

PEX Changes

305.5 Pipes through or under footings or foundation walls. Any pipe that passes under a footing or through a foundation wall shall be provided with a relieving arch, or a pipe sleeve pipe shall be built into the foundation wall. The sleeve shall be two pipe sizes greater than the pipe passing through the wall.

305.5.1 PEX and or CPVC. PEX or CPVC installed for the purpose of water distribution piping shall not be required to be sleeved under slab. ~~However, the installer should be mindful of the manufacturer's installation instructions to the sleeving of pipe under slab, unless otherwise required by the manufacturer's instructions.~~

Air Admittance Valve Changes

SECTION 912 COMBINATION DRAIN AND VENT SYSTEM

912.1 Type of fixtures. A combination drain and vent system shall not serve fixtures other than floor drains, sinks, lavatories and drinking fountains. Combination drain and vent systems shall not receive the discharge from a commercial food waste grinder or clinical sink.

912.2 Installation. The only vertical pipe of a combination drain and vent system shall be the connection between the fixture drain of a sink, floor drain, lavatory or drinking fountain, and the horizontal combination drain vent pipe. The maximum vertical distance shall be 8 feet (2438 mm) and the minimum pipe diameter shall be 3 inches. The 3-inch pipe shall rise vertically as high as possible above the fixture drain connection and terminate with a cap or an approved air admittance valve. Island sinks ~~shall~~ may be installed using a combination drain and vent system.

912.2.1 Slope. The horizontal combination drain and vent pipe shall have a maximum slope of one-half unit vertical in 12 units horizontal (4-percent slope). The minimum slope shall be in accordance with Table 704.1

or unless approved by the state administrative authority.

912.2.1.2 Restricted waste. No drainage piping conveying soil or waste from water closets or urinals shall be connected to any combination waste and vent system: nor shall such waste pass through any part of the combination drain and vent system.

912.2.2 Connection. The combination drain and vent system shall be provided with a dry vent connected at any point within the combination drain system and shall be sized in accordance with Table 916.1.

912.2.3 Size of the combination drain and vent piping. Piping shall be increased two (2) pipe sizes greater than the fixture trap served, beginning at the trap and including all branches and the main drain.

SECTION 913 ISLAND FIXTURE VENTING

913.1 Limitation. Island fixture venting shall not be permitted for fixtures other than sinks and lavatories. Residential kitchen sinks with a dishwasher waste connection, a food waste grinder, or both, in combination with the kitchen sink waste, shall be permitted to be vented in accordance with this section.

913.2 Vent connection. The island fixture vent shall connect to the fixture drain as required for an individual or common vent. The vent shall rise vertically to above the drainage outlet of the fixture being vented before offsetting horizontally or vertically downward. The vent or branch vent for multiple island fixture vents shall extend to a minimum of 6 inches (152 mm) above the highest island fixture being vented before connecting to the outside vent terminal.

913.3 Vent installation below the fixture flood level rim. The vent located below the flood level rim of the fixture being vented shall be installed as required for drainage piping in accordance with Chapter 7, except for sizing. The vent shall be sized in accordance with Section 916.2. The lowest point of the island fixture vent shall connect full size to the drainage system. The connection shall be to a vertical drainpipe or to the top half of a horizontal drain pipe. Cleanouts shall be

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provided in the island fixture vent to permit rodding of vent piping located below the flood level rim of the fixtures. Rodding in both be directions shall be permitted through a cleanout.

SECTION 917 AIR ADMITTANCE VALVES

917.1 General. Vent systems utilizing air admittance valves shall comply with this section, ~~and the Arkansas rules and regulations (Appendix I) pertaining to air admittance valves for DWV venting systems.~~ Individual and branch-type air admittance valves shall conform to ASSE 1051. Stack-type air admittance valves shall conform to ASSE 1050. Individual and branch-type air admittance valves shall conform to ASSE 1051.

917.2 Installation. The valves shall be installed in accordance with the requirements of this section ~~and the Arkansas rules and regulations (Appendix I),~~ and the manufacturer's installation instructions. Air admittance valves shall be installed after the DWV testing required by Section 312.2 or 312.3 has been performed.

917.3 Where permitted. Individual, branch and circuit vents shall be permitted to terminate with a connection to an individual or branch-type air admittance valve. Stack vents and vent stacks shall be permitted to terminate to stack-type air admittance valves. The air admittance valve Individual and branch-type air admittance valves shall vent only fixtures that are on the same floor level and connect to a horizontal branch drain. The horizontal branch drain having individual and branch-type air admittance valves shall conform to Section 917.3.1 or Section 917.3.2.

917.3.1 Location of branch. The horizontal branch drain shall connect to the drainage stack or building drain a maximum of four branch intervals from the top of the stack.

917.3.2 Relief vent. Where ~~F~~ the horizontal branch is located more than four branch intervals from the top of the stack, the horizontal branch shall be provided with a relief vent that shall connect to a vent stack, or stack vent, or extend outdoors to the open air.

The relief vent shall connect to the horizontal branch drain between the stack or building drain and the most downstream fixture drain connected to the horizontal branch drain. The relief vent shall be sized in accordance with Section 916.2 and installed in accordance with Section 905. The relief vent shall be permitted to serve as the vent for other fixtures.

917.3.3 Stack. Stack-type air admittance valves shall not serve as the vent terminal for vent stacks or stack vents that serve drainage stacks exceeding six branch intervals.

917.4 Location. Individual and branch-type ~~The~~ air admittance valve shall be located a minimum of ~~6~~ 4 inches (1502 mm) above the horizontal branch drain or above the fixture drain being vented. flood level rim of the fixture served. Stack-type air admittance valves shall be located not less than 6 inches (152 mm) above the flood level rim of the highest fixture being vented. The air admittance valve shall be located within the maximum developed length permitted for the vent. The air admittance valve shall be installed a minimum of 6 inches (152 mm) above insulation materials.

917.5 Access and ventilation. Access shall be provided to all air admittance valves. The valve shall be located within a ventilated space that allows air to enter the valve.

917.6 Size. The air admittance valve shall be rated in accordance with the standard for the size of the vent to which the valve is connected.

917.7 Vent required. Within each plumbing system, a minimum of one stack vent or vent stack ~~3-inch (76 mm) stack~~ shall extend outdoors to the open air.

917.8 Prohibited installations. Air admittance valves shall not be installed in nonneutralized special waste systems as described in Chapter 8. Valves shall not be located in spaces utilized as supply or return air plenums.

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APPENDIX I

RULES AND REGULATIONS

PERTAINING TO

AIR ADMITTANCE VALVES (AAV)

FOR

D.W.V. VENTING SYSTEMS

SECTION 1. AUTHORITY

The following Rules and Regulations pertaining to air admittance valves for drainage, waste and vent (DWV) systems are duly adopted and promulgated by the Arkansas State Board of Health pursuant to the authority expressly conferred by the laws of the State of Arkansas including, without limitation, Act 200 of 1951, as amended, and Act 96 of 1913, as amended.

SECTION II. PURPOSE

To protect the citizens of Arkansas by establishing standards for D.W.V. venting systems using air admittance valves that conform to the requirements of the American Society of Sanitary Engineers (A.S.S.E.) performance standards ANSI/ASSE 1051 and 1050.

SECTION III. DEFINITIONS

For the purposes of these Regulations, the following words and phrases when used herein shall be construed as follows:

a) Access

That which enables a fixture, appliance equipment, fitting, or pipe to be reached by ready access or by a means that first requires the removal or movement of panel, door or similar obstruction.

b) Adapter Fitting

An approved connecting device that suitably and properly joins or adjusts pipes and fittings that do not otherwise fit together.

c) Air Admittance Valve

One-way valve designed to allow air to enter the plumbing system when negative pressures develop in the piping system. The device shall close by gravity and seal the vent terminal at zero differential pressure (no flow conditions) and under positive internal pressures. The purpose of an air admittance valve is to provide a method of allowing air to enter the plumbing drainage system without the use of a vent extended to open air and to prevent sewer gases from escaping into a building.

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~~d) **Approved**~~

~~Acceptable to the provisions of this code or the authority having jurisdiction.~~

~~e) **Authority Having Jurisdiction**~~

~~The administrative authority or authority having jurisdiction is the State of Arkansas, county or city plumbing inspection department that administers or enforces the provisions of Act 200 of 1951, as adopted or amended.~~

~~f) **Drainage System**~~

~~A drainage system (drainage piping) includes all the piping within public or private premises which conveys sewage, rain water or other liquid wastes to a legal point of disposal, but does not include the mains of a public sewer system or a private or public sewage treatment or disposal plant.~~

~~g) **D.W.V.**~~

~~Acronym for drainage, waste and vent system.~~

~~h) **Relief Vent**~~

~~A relief vent is a vent the primary function of which is to provide circulation of air between drainage and vent systems.~~

~~i) **Vent System**~~

~~A pipe or pipes installed to provide a flow of air to or from a drainage system, or to provide a circulation of air within such system to protect trap seals from siphonage and backpressure.~~

~~SECTION IV. MATERIALS~~

~~a) The air admittance valves shall be made of acrylonitrile butadiene styrene (ABS) plastic. A factory installed screening shall protect the moving and sealing components against the entrance of vermin, foreign objects and materials from inside and outside.~~

~~b) Valve components shall be constructed entirely of new and unused parts and materials.~~

~~c) Valve components and materials shall have been evaluated and found suitable for their intended usage by a testing agency recognized by the authority having jurisdiction.~~

~~d) When requested, the manufacturer of the air admittance valve shall furnish evidence acceptable to the authority having jurisdiction concerning the composition of the materials used in all components of the piping system.~~

~~e) The construction of parts not specifically covered by this regulation shall be in accordance with reasonable concepts of safety, substantially and durability.~~

~~f) Installing and joining of valves shall be done in compliance with the manufacturer's recommendation and the applicable state/local plumbing codes and regulations.~~

~~SECTION V. MARKING REQUIREMENTS~~

~~a) Each valve or packaged unit shall bear a permanent marking of the following:~~

~~1) Manufacturer's name, trademark, or symbol.~~

~~2) Code number identifying the compound and date of manufacture.~~

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- ~~3) Symbol of the organization making the test for compliance with the regulation.~~
- ~~4) ASSE seal of approval (attached).~~

~~SECTION VI. INSTRUCTIONS AND REQUIREMENTS FOR INSTALLATION~~

- ~~a) The manufacturer shall provide complete detailed instructions, including appropriate illustrations, necessary for proper installation and use of the valves. Included in the instructions shall be statements to the effect that:
 - ~~1) The installation must be in accordance with the manufacturer's recommendations and the applicable state/local plumbing codes and regulations.~~
 - ~~2) Air admittance valves shall be installed in a vertical position only.~~
 - ~~3) Only the components provided or specified by the manufacturer and in accordance with the applicable state/local plumbing codes as part of the piping system are to be used in the installation.~~
 - ~~4) Vent systems using air admittance valves shall comply with applicable plumbing codes.~~~~

~~SECTION VII. RESTRICTIONS AND LIMITATIONS~~

- ~~a) Air admittance valves may only be installed in DWV plumbing systems that have been designed by an Arkansas registered professional engineer. Detailed schematics shall be made available to the plumbing inspector at the time inspections are made. No variations from the engineered designed system may be made unless approved by the authority having jurisdiction. Air admittance valves are to be used only on systems conforming to waste and vents requirements of Arkansas State Plumbing Code.~~
- ~~b) The air admittance valve shall not be installed as a vent terminal for any sump vent.~~
- ~~c) The air admittance valve shall not be used to vent a special waste or chemical waste system.~~
- ~~d) The air admittance valve shall not be located in a supply or return plenum.~~
- ~~e) The maximum height of drainage stack being vented by a stack pipe air admittance valve shall be six (6) branch intervals.~~
- ~~f) The air admittance valve shall not be used when the soil stack provides the only ventilation for septic tanks.~~
- ~~g) A minimum of one (1) vent shall extend to the outdoors to the open air for every building drainage system and must be at least three (3) or four (4) inches in size.~~
- ~~h) The air admittance valve shall be rated for the size of the vent to which the valve is connected. Determining the size of the air admittance valve is based on the pipe size required for the vent. The vent pipe size is based on the size required by the Arkansas State Plumbing Code.~~
- ~~i) Cleanouts shall be provided in accordance with the Arkansas State Plumbing Code.~~
- ~~j) Each air admittance valve shall be accessible for service, repair, or replacement.~~
- ~~k) The air admittance valve shall be located to allow adequate air to enter the valve. When located in a wall space or attic space, ventilation openings shall be provided. All air admittance valves~~

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~~installed in an attic areas shall be located a minimum of six (6) inches above any ceiling insulation.~~

- ~~l) The valve shall connect to the drain with a vertical connection to maintain an unblocked opening in the piping system and shall be installed after the DWV testing required by section 14.8. Arkansas State Plumbing Code has been performed.~~
- ~~m) Individual, branch and circuit vents shall be permitted to terminate with a connection to an air admittance valve. The air admittance valve shall only vent fixtures that are on the same floor level and connect to a horizontal branch drain with a maximum of four branch intervals. The horizontal branch drain shall conform to section 11.5. of the Arkansas State Plumbing Code.~~
- ~~n) The horizontal branch drain shall connect to the drainage stack or building drain a maximum of four branch intervals from the top of the stack.~~
- ~~o) The horizontal branch shall be provided with a relief vent that shall connect to a vent stack, stack vent, or extend outdoors to the open air. The relief vent shall connect to the horizontal branch drain between the stack or building drain and the most downstream fixture drain connected to the horizontal branch drain. The relief vent shall be sized and installed in accordance with applicable sections of the Arkansas State Plumbing Code. The vent shall be permitted to serve as the vent for other fixtures.~~
- ~~p) The air admittance valve shall be located within the maximum developed length permitted for the vent. The air admittance valve shall be installed at least six (6) inches above the flood rim of the fixture served.~~
- ~~q) No vent terminal from a drainage system shall be directly beneath any door, window or other ventilating opening of the building, or an adjacent building, nor shall any such vent terminal be within ten (10) feet horizontally of such an opening unless it is at least two (2) feet above the top of such opening.~~
- ~~r) No air admittance valves shall be installed in attics or any place, unless adequate provisions are made to protect such valves, where necessary, from freezing.~~

~~SECTION VIII. SEVERABILITY~~

~~If any provision of these Rules and Regulations, or the application thereof to any person is held invalid, such invalidity shall not affect other provisions or application of these regulations which can give effect without the invalid provisions or applications, and to this end the provisions hereto are declared to be severable.~~

~~SECTION IX. REPEAL~~

~~All regulations and parts of regulations in conflict with this regulation are hereby repealed.~~