

2007/2008 INTERNATIONAL RESIDENTIAL PLUMBING/MECHANICAL CODE COMMITTEE

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INTERNATIONAL RESIDENTIAL PLUMBING/MECHANICAL CODE COMMITTEE HEARING RESULTS

RP1-07/08

Committee Action: **Disapproved**

Committee Reason: The testing of plastic DWV piping systems with air is a viable method for cold climates and areas where water sources are not readily available. While there might be some potential hazard in testing DWV systems with air, the committee felt that the occupational risks were no more than what is normally encountered on a construction site.

Assembly Action: **None**

RP2-07/08

Committee Action: **Disapproved**

Committee Reason: The proposed code change needs to address drainability and access requirements for the shut off valve.

Assembly Action: **None**

RP3-07/08

Note: The following analysis was not in the Code Change Proposal book but was posted on the ICC website.

Analysis: Review of proposed new standard NFPA 13D-07 indicated that, in the opinion of ICC staff, the standard did comply with ICC standards criteria as it is already in the 2006 IFC).

Committee Action: **Approved as Modified**

Modify proposal as follows:

**SECTION P2904
~~MULTIPURPOSE DWELLING FIRE SPRINKLER SYSTEMS~~**

P2904.1 General. ~~A multipurpose fire sprinkler system shall provide domestic water to both fire sprinklers and plumbing fixtures and~~ Where installed, residential fire sprinkler systems, or portions thereof, shall be in accordance with NFPA 13D or Section P2904. Section P2904, which shall be considered equivalent to NFPA 13D. Section P2904 shall apply to stand-alone and multipurpose wet-pipe sprinkler systems that do not include the use of antifreeze. A multipurpose fire sprinkler system shall provide domestic water to both fire sprinklers and plumbing fixtures. A stand-alone sprinkler system shall be separate and independent from the water distribution system. A backflow flow preventer shall not be required to separate a stand-alone sprinkler system from the water distribution system.

P2904.1.1 Required sprinkler locations. Sprinklers shall be installed to protect all areas of a dwelling unit.

Exceptions:

1. Attics, crawl spaces, and normally unoccupied concealed spaces that do not contain fuel-fired appliances do not require sprinklers. In attics, crawl spaces, and normally unoccupied concealed spaces that contain fuel-fired equipment, a sprinkler shall be provided above the equipment; however, sprinklers shall not be required in the remainder of the space.
2. Clothes closets, linen closets and pantries not exceeding 24 square feet in area, with the smallest dimension not greater than 3 feet and having wall and ceiling surfaces of gypsum board.
3. Bathrooms not greater than 55 square feet in area.
4. Garages; carports; exterior porches; unheated entry areas, such as mud rooms, that are adjacent to an exterior door; and similar areas.

P2904.2 Sprinklers. Sprinklers shall be new listed residential sprinklers and shall be installed in accordance with the sprinkler manufacturer's installation instructions.

P2904.2.1 Temperature rating and separation from heat sources. Except as provided for in Section P2904.2.2, sprinklers shall have a temperature rating of not less than 135°F and not more than 170°F. Sprinklers shall be separated from heat sources as required by the sprinkler manufacturer's installation instructions.

P2904.2.2 Intermediate temperature sprinklers. Sprinklers shall have an intermediate temperature rating not less than 175°F and not more than 225°F where installed in the following locations:

1. Directly under skylights, where the sprinkler is exposed to direct sunlight.
2. In attics.
3. In concealed spaces located directly beneath a roof.
4. Within the distance to a heat source as specified in Table P2904.2.2

**TABLE P2904.2.2
LOCATIONS WHERE INTERMEDIATE TEMPERATURE SPRINKLERS ARE REQUIRED**

HEAT SOURCE	RANGE OF DISTANCE FROM HEAT SOURCE WITHIN WHICH INTERMEDIATE TEMPERATURE SPRINKLERS ARE REQUIRED ^{a,b} (inches)
Fireplace, Side of Open or Recessed Fireplace	12 to 36
Fireplace, Front of Recessed Fireplace	36 to 60
Coal and Wood Burning Stove	12 to 42
Kitchen Range Top	9 to 18
Oven	9 to 18
Vent Connector or Chimney Connector	9 to 18
Heating Duct, Not Insulated	9 to 18
Hot Water Pipe, Not Insulated	6 to 12
Side of Ceiling or Wall Warm Air Register	12 to 24
Front of Wall Mounted Warm Air Register	18 to 36
Water Heater, Furnace, or Boiler	3 to 6
Luminaire Up to 250 Watts	3 to 6
Luminaire 250 Watts Up to 499 Watts	6 to 12

- a. Sprinklers shall not be located at distances less than the minimum table distance unless the sprinkler listing allows a lesser distance.
- b. Distances shall be measured in a straight line from the nearest edge of the heat source to the nearest edge of the sprinkler.

P2904.2.3 Freezing areas. Piping shall be protected from freezing as required by Section P2603.6. Where sprinklers are required in areas that are subject to freezing, dry-sidewall or dry-pendent sprinklers extending from a non-freezing area into a freezing area shall be installed.

P2904.2.4 Sprinkler coverage. Sprinkler coverage requirements and sprinkler obstruction requirements shall be in accordance with Sections P2904.2.4.1 and P2904.2.4.2.

P2904.2.4.1 Coverage area limit. The area of coverage of a single sprinkler shall not exceed 400 square feet and shall be based on the sprinkler listing and the sprinkler manufacturer's installation instructions.

P2904.2.4.2 Obstructions to coverage. Sprinkler discharge shall not be blocked by obstructions unless additional sprinklers are installed to protect the obstructed area. Sprinkler separation from obstructions shall comply with the minimum distances specified in the sprinkler manufacturer's instructions.

P2904.2.4.2.1 Additional requirements for pendent sprinklers. Pendent sprinklers within 3 feet of the center of a ceiling fan, surface-mounted ceiling luminaire or similar object shall be considered to be obstructed, and additional sprinklers shall be provided.

P2904.2.4.2.2. Additional requirements for sidewall sprinklers. Sidewall sprinklers within 5 feet of the center of a ceiling fan, surface-mounted ceiling luminaire or similar object shall be considered to be obstructed, and additional sprinklers shall be provided.

P2904.2.5 Sprinkler installation on systems assembled with solvent cement. The solvent cementing of threaded adapter fittings shall be completed and threaded adapters for sprinklers shall be verified as being clear of excess cement prior to the installation of sprinklers on systems assembled with solvent cement.

P2904.2.6 Sprinkler modifications prohibited. Painting, caulking or modifying of sprinklers shall be prohibited. Sprinklers that have been painted, caulked, modified or damaged shall be replaced with new sprinklers.

P2904.3 Sprinkler piping system. Sprinkler piping shall be supported in accordance with the requirements for cold water distribution piping. Sprinkler piping shall comply with all requirements for cold water distribution piping. For multipurpose piping systems, the sprinkler piping shall connect to and be a part of the cold water distribution piping system.

P2904.3.1 Nonmetallic pipe and tubing. Nonmetallic pipe and tubing, such as CPVC and PEX, shall be listed for use in residential fire sprinkler systems.

P2904.3.1.1 Nonmetallic pipe protection. Nonmetallic pipe and tubing systems shall be protected from exposure to the living space by a layer of not less than 3/8 inch thick gypsum wallboard, 1/2 inch thick plywood, or other material having a 15 minute fire rating.

Exceptions.

1. Pipe protection shall not be required in areas that are not required to be protected with sprinklers as specified in Section P2904.1.1.
2. Pipe protection shall not be required where exposed piping is permitted by the pipe listing.

P2904.3.2 Shutoff valves prohibited. With the exception of shutoff valves for the entire water distribution system, valves shall not be installed in any location where the valve would isolate piping serving one or more sprinklers.

P2904.3.3 Single dwelling limit. Piping beyond the service valve located at the beginning of the water distribution system shall not serve more than one dwelling.

P2904.3.4 Drain. A means to drain the sprinkler system shall be provided on the system side of the water distribution shutoff valve.

P2904.4 Determining system design flow. The flow for sizing the sprinkler piping system shall be based on the flow rating of each sprinkler in accordance with Section P2904.4.1 and the calculation in accordance with Section P2904.4.2.

P2904.4.1 Determining required flow rate for each sprinkler. The minimum required flow for each sprinkler shall be determined using the sprinkler manufacturer's published data for the specific sprinkler model based on all of the following:

1. The area of coverage
2. The ceiling configuration
3. The temperature rating
4. Any additional conditions specified by the sprinkler manufacturer.

P2904.4.2 System design flow rate. The design flow rate for the system shall be based on the following:

1. The design flow rate for a room having only one sprinkler shall be the flow rate required for that sprinkler, as determined by Section P2904.4.1.
2. The design flow rate for a room having two or more sprinklers shall be determined by identifying the sprinkler in that room with the highest required flow rate, based on Section P2904.4.1, and multiplying that flow rate by 2.
3. Where the sprinkler manufacturer specifies different criteria for ceiling configurations that are not smooth, flat and horizontal, the required flow rate for that room shall comply with the sprinkler manufacturer's instructions.
4. The design flow rate for the sprinkler system shall be the flow required by the room with the largest flow rate, based on Items 1, 2 and 3.
5. For the purpose of this section, it shall be permissible to reduce the design flow rate for a room by subdividing the space into two or more rooms, where each room is evaluated separately with respect to the required design flow rate. Each room shall be bounded by walls and a ceiling. Openings in walls shall have a lintel not less than 8 inches in depth and each lintel shall form a solid barrier between the ceiling and the top of the opening.

P2904.5 Water supply. The water supply shall provide not less than the required design flow rate for sprinklers in accordance with Section P2904.4.2 at a pressure not less than that used to comply with Section P2904.6.

P2904.5.1 Water supply from individual sources. Where a dwelling unit water supply is from a tank system, a private well system, or a combination of these, the available water supply shall be based on the minimum pressure control setting for the pump.

P2904.5.2. Required capacity. The water supply shall have the capacity to provide the required design flow rate for sprinklers for a period of time as follows:

1. 7 minutes for dwelling units one story in height and less than 2,000 square feet in area
2. 10 minutes for dwelling units two or more stories in height or equal to or greater than 2,000 square feet in area.

Where a well system, a water supply tank system, or a combination thereof, is used, any combination of well capacity and tank storage shall be permitted to meet the capacity requirement.

P2904.6 Pipe sizing. The piping to sprinklers shall be sized for the flow required by Section P2904.4.2. The flow required to supply the plumbing fixtures shall not be required to be added to the sprinkler design flow.

P2904.6.1 Method of sizing pipe. Piping supplying sprinklers shall be sized using the prescriptive method in Sections P2904.6.2 or by hydraulic calculation in accordance with NFPA 13D. The minimum pipe size from the water supply source to any sprinkler shall be 3/4 inch nominal. Threaded adapter fittings at the point where sprinklers are attached to the piping shall be a minimum of ½ inch nominal.

P2904.6.2 Prescriptive pipe sizing method. Pipe shall be sized by determining the available pressure to offset friction loss in piping and identifying a piping material, diameter and length using the equation in Section P2904.6.2.1 and the procedure in Section P2904.6.2.2.

P2904.6.2.1 Available pressure equation. The pressure available to offset friction loss in the interior piping system (P_t) shall be determined in accordance with the Equation 29-1.

$$P_t = P_{sup} - PL_{svc} - PL_m - PL_d - PL_e - P_{sp} \quad \text{(Equation 29-1)}$$

Where:

- P_t = Pressure used in applying Tables P2904.6.2(4) through P2904.6.2(9).
- P_{sup} = Pressure available from the water supply source.
- PL_{svc} = Pressure loss in the water-service pipe.
- PL_m = Pressure loss in the water meter.
- PL_d = Pressure loss from devices other than the water meter.
- PL_e = Pressure loss associated with changes in elevation.
- P_{sp} = Maximum pressure required by a sprinkler

2904.6.2.2 Calculation procedure. Determination of the required size for water distribution piping shall be in accordance with the following procedure:

Step 1 - Determine P_{sup}

Obtain the static supply pressure that will be available from the water main from the water purveyor, or for an individual source, the available supply pressure shall be in accordance with Section P2904.5.1. ~~The pressure shall be the residual pressure available at the flow rate used when applying Table P2904.6.2(1).~~

Step 2 – Determine PL_{svc}

Use Table P2904.6.2(1) to determine the pressure loss in the water service pipe based on the selected size of the water service.

Step 3 – Determine PL_m

Use Table P2904.6.2(2) to determine the pressure loss from the water meter. based on the selected water meter size.

Step 4 – Determine PL_d

Determine the pressure loss from devices, other than the water meter, installed in the piping system supplying sprinklers, such as pressure-reducing valves, backflow preventers, water softeners or water filters. Device pressure losses shall be based on the device manufacturer's specifications. The flow rate used to determine pressure loss shall be the rate from Section P2904.4.2, except that 5 gpm shall be added where the device is installed in a water-service pipe that supplies more than one dwelling. As alternative to deducting pressure loss for a device, an automatic bypass valve shall be installed to divert flow around the device when a sprinkler activates.

Step 5 – Determine PL_e

Use Table P2904.6.2(3) to determine the pressure loss associated with changes in elevation. The elevation used in applying the table shall be the difference between the elevation where the water source pressure was measured and the elevation of the highest sprinkler.

Step 6 – Determine P_{sp}

Determine the maximum pressure required by any individual sprinkler based on the flow rate from Section P2904.4.1. The required pressure is provided in the sprinkler manufacturer's published data for the specific sprinkler model based on the selected flow rate.

Step 7 – Calculate P_t

Using Equation 29-1, calculate the pressure available to offset friction loss in water-distribution piping between the service valve and the sprinklers.

Step 8 – Determine the maximum allowable pipe length

Use Tables P2904.6.2(4) through P2904.6.2(9) to select a material and size for water distribution piping. The piping material and size shall be acceptable if the developed length of pipe between the service valve the most remote sprinkler does not exceed the maximum allowable length specified by the applicable table. Interpolation of P_t between the tabular values shall be permitted.

The maximum allowable length of piping in Tables P2904.6.2(4) through P2904.6.2(9) incorporates an adjustment for pipe fittings, and no additional consideration of friction losses associated with pipe fittings shall be required.

P2904.7 Instructions and signs. An owner's manual for the fire sprinkler system shall be provided to the owner. A sign or valve tag shall be installed at the main shutoff valve to the water distribution system stating the following: "Warning, the water system for this home supplies fire sprinklers that require certain flows and pressures to fight a fire. Devices that restrict the flow or decrease the pressure or automatically shut off the water to the fire sprinkler system, such as water softeners, filtration systems, and automatic shutoff valves, shall not be added to this system without a review of the fire sprinkler system by a fire protection specialist. Do not remove this sign."

P2904.8 Inspections. The water distribution system shall be inspected in accordance with Sections P2904.8.1 and P2904.8.2.

P2904.8.1 Pre-concealment Inspection. The following items shall be verified prior to the concealment of any sprinkler system piping:

1. Sprinklers are installed in all areas as required by Section P2904.1.1.
2. Where sprinkler water spray patterns are obstructed by construction features, luminaires or ceiling fans, additional sprinklers are installed as required by Section P2904.2.4.2.
3. Sprinklers are the correct temperature rating and are installed at or beyond the required separation distances from heat sources as required by Sections P2904.2.1 and P2904.2.2.
4. The pipe size equals or exceeds the size used in applying Tables P2904.6.2(4) through P2904.6.2(9) or, if the piping system was hydraulically calculated in accordance with Section P2904.6.1, the size used in the hydraulic calculation.
5. The pipe length does not exceed the length permitted by Tables P2904.6.2(4) through P2904.6.2(9) or, if the piping system was hydraulically calculated in accordance with Section P2904.6.1, pipe lengths and fittings do not exceed those used in the hydraulic calculation.
6. Non-metallic piping that conveys water to sprinklers is listed for use with fire sprinklers.
7. Piping is supported in accordance with the pipe manufacturer's and sprinkler manufacturer's installation instructions.
8. The piping system is tested in accordance with Section P2503.6

P2904.8.2 Final Inspection. The following items shall be verified upon completion of the system:

1. Sprinkler are not painted, damaged or otherwise hindered from operation.
2. Where a pump is required to provide water to the system, the pump starts automatically upon system water demand.
3. Pressure reducing valves, water softeners, water filters or other impairments to water flow that were not part of the original design have not been installed.
4. The sign or valve tag required by Section P2904.7 is installed and the owner's manual for the system is present.

TABLE P2904.6.2(1)
WATER SERVICE PRESSURE LOSS (PL_{svc})^{a, b}
(Underlining of table omitted for clarity)

Flow Rate ^c (gpm)	¾ inch Water Service Pressure Loss (psi)				1 inch Water Service Pressure Loss (psi)				1-1/4 inch Water Service Pressure Loss (psi)			
	40' or less	41' to 75'	76' to 100'	101' to 150'	40' or less	41' to 75'	76' to 100'	101' to 150'	40' or less	41' to 75'	76' to 100'	101' to 150'
8	5.1	8.7	11.8	17.4	1.5	2.5	3.4	5.1	0.6	1.0	1.3	1.9
10	7.7	13.1	17.8	26.3	2.3	3.8	5.2	7.7	0.8	1.4	2.0	2.9
12	10.8	18.4	24.9	NP	3.2	5.4	7.3	10.7	1.2	2.0	2.7	4.0
14	14.4	24.5	NP	NP	4.2	7.1	9.6	14.3	1.6	2.7	3.6	5.4
16	18.4	NP	NP	NP	5.4	9.1	12.4	18.3	2.0	3.4	4.7	6.9
18	22.9	NP	NP	NP	6.7	11.4	15.4	22.7	2.5	4.3	5.8	8.6
20	27.8	NP	NP	NP	8.1	13.8	18.7	27.6	3.1	5.2	7.0	10.4
22	NP	NP	NP	NP	9.7	16.5	22.3	NP	3.7	6.2	8.4	12.4
24	NP	NP	NP	NP	11.4	19.3	26.2	NP	4.3	7.3	9.9	14.6
26	NP	NP	NP	NP	13.2	22.4	NP	NP	5.0	8.5	11.4	16.9
28	NP	NP	NP	NP	15.1	25.7	NP	NP	5.7	9.7	13.1	19.4
30	NP	NP	NP	NP	17.2	NP	NP	NP	6.5	11.0	14.9	22.0
32	NP	NP	NP	NP	19.4	NP	NP	NP	7.3	12.4	16.8	24.8
34	NP	NP	NP	NP	21.7	NP	NP	NP	8.2	13.9	18.8	NP
36	NP	NP	NP	NP	24.1	NP	NP	NP	9.1	15.4	20.9	NP

NP - Not permitted. Pressure loss exceeds reasonable limits

- a. Values are applicable for underground piping materials listed in Table P2904.4 and are based on an SDR of 11 and a Hazen Williams C Factor of 150.
- b. Values include the following length allowances for fittings: 25% length increase for actual lengths up to 100 feet and 15% length increase for actual lengths over 100 feet.
- c. Flow rate from Section P2904.4.2. Add 5 gpm to the flow rate required by Section P2904.4.2 where the water-service pipe supplies more than one dwelling.

**TABLE P2904.6.2(2)
MINIMUM WATER METER PRESSURE LOSS (PL_M)^A**

FLOW RATE (GPM)^B	5/8 inch METER PRESSURE LOSS (PSI)	3/4 inch METER PRESSURE LOSS (PSI)	1 inch METER PRESSURE LOSS (PSI)
8	2	1	1
10	3	1	1
12	4	1	1
14	5	2	1
16	7	3	1
18	9	4	1
20	11	4	2
22	NP	5	2
24	NP	5	2
26	NP	6	2
28	NP	6	2
30	NP	7	2
32	NP	7	3
34	NP	8	3
36	NP	8	3

NP - Not permitted unless the actual water meter pressure loss is known.

- a. Table 2904.6.2(2) establishes conservative values for water meter pressure loss or installations where the water meter loss is unknown. Where the actual water meter pressure loss is known, P_m shall be the actual loss.
- b. Flow rate from Section P2904.4.2. Add 5 gpm to the flow rate required by Section P2904.4.2 where the water-service pipe supplies more than one dwelling.

(Portions of proposal not shown remain unchanged)

Committee Reason: This proposal provides an easy, cost effective method for the installation of fire sprinklers in residential applications. Section P2904.1 modifications clarify; 1) that the intent of the section is to address residential sprinkler systems for dwelling units, 2) that Section P2904 applies to both multipurpose and stand-alone systems except those using antifreeze and dry piping and 3) that backflow protection is not required between a stand-alone system and the water distribution system. Section P2404.2 modification clarifies that sprinklers must be new and not used or refurbished. Section P2904.2.5 modification clarifies that the concern for checking for excess cement only applies to the threaded adapter fittings and not to every fitting in the system. Section P2904.3 modification clarifies that the hanger requirements for sprinkler piping will be those required by the code for cold water distribution piping. Section P2904.3.4 modification adds the requirement for having a sprinkler system drain valve. Section P2901.5.2 modification clarifies that the 7 minute water supply capacity only applies to buildings one story in height having less than 2000 square feet and that the 10 minute water supply capacity is for buildings of 2 or more stories in height or equal to and greater than 2000 square feet. Section P2904.6.2.2 modification clarifies that the supply pressure measurement is a static pressure (not a fire flow pressure). Table P2904.6.2(2) modification adds a 1 inch water meter pressure loss column because some water departments are providing one inch meters for residential buildings with fire sprinkler systems.

Assembly Action:

None

RP4-07/08

Errata: RP4-07/08: Add the following code change:

P2904.17.2

Proponent: Jud Collins, JULYCO, representing himself

Revise as follows:

P2904.17.2 (Supp) Plastic pipe or tubing to other piping material. Joints between different grades of plastic pipe or between plastic pipe and other piping material shall be made with an approved adapter fitting. ~~Joints between plastic pipe and cast iron hub pipe shall be made by a caulked joint or a mechanical compression joint.~~

Reason: Cast-iron pipe is not approved for water supply or distribution. This sentence does not belong in the water supply chapter.

Cost Impact: The code change proposal will not increase the cost of construction.

Committee Action:

Approved as Submitted

Committee Reason: Because cast iron water supply piping is never used in one and two family residential applications, the text concerning the connection between plastic and cast iron needs to be deleted.

Assembly Action:

None

RP5-07/08

Committee Action:

Approved as Submitted

Committee Reason: The proposed text better defines the location for a cleanout at the base of stacks. The current text is ambiguous regarding which wall is referred to.

Assembly Action:

None

RP6-07/08

Not Used

RP7-07/08

Committee Action:

Approved as Submitted

Committee Reason: Standards updates are necessary to keep the code current with latest standards.

Assembly Action:

None

RP8-07/08

Committee Action:

Approved as Submitted

Committee Reason: This alternative method for the installation of residential fire sprinklers contains "trade-offs" that could be useful for some jurisdictions.

Assembly Action:

Disapproved

RM1-07/08

Committee Action:

Disapproved

Committee Reason: The proposal provides no guidance for securing the wheel stops or how far to locate them from the appliance. There are no strength requirements for the steel posts or any mention of whether the steel posts must be filled with concrete. Elevating an appliance to avoid vehicle impact would not be allowed by this code change.

Assembly Action:

None

RM2-07/08

Committee Action:

Approved as Modified

Modify proposal as follows:

M1307.3.1 Protection from impact. Appliances shall not be installed in a location subject to ~~mechanical~~ vehicle damage except where protected by approved barriers.

Committee Reason: This language is similar to that in the IMC and is more inclusive. Many appliances located outside the garage or carport can still be impacted by vehicles because they are located in proximity to the driveway. The word "mechanical" was deleted by the modification because the committee thought it confused the issue. No one was sure what constitutes mechanical damage.

Assembly Action:

None

RM3-07/08

Note: The following analysis was not in the Code Change Proposal book but was posted on the ICC website.

Analysis: Review of proposed new standard ACCA 4-2007 indicated that, in the opinion of ICC Staff, the standard did not comply with ICC standards criteria, Section 3.6.3.1.

Committee Action:

Disapproved

Committee Reason: The ACCA 4 standard was deemed not to comply with ICC criteria for referenced standards due to permissive language. Maintenance requirements should be located in Section M1202.3.

Assembly Action:

None

RM4-07/08

Note: The following analysis was not in the Code Change Proposal book but was posted on the ICC website.

Analysis: Review of proposed new standard ANSI/ACCA Manual S3-2004 indicated that, in the opinion of ICC Staff, the standard did not comply with ICC standards criteria, Section 3.6.3.1.

Committee Action:

Disapproved

Committee Reason: ACCA Manual S was deemed not to comply with ICC criteria for referenced standards due to permissive language. This manual can still be used and referenced when submitting equipment sizing calculations without the manual being referenced in the code because ACCA Manual J references Manual S.

Assembly Action:

None

RM5-07/08

Committee Action:

Disapproved

Committee Reason: The proposal does not specify how much slope the pan requires. There was concern that the term "side bottom outlet" was ambiguous and would be misconstrued in the field. The pans shown in the proponent's reason statement would have to be custom built and could be fairly expensive for the homeowner.

Assembly Action:

None

RM6-07/08

Committee Action: **Disapproved**

Committee Reason: The proponent's reason for wanting to delete this section was that there are no refrigerant pipes in residential construction. However, this section is still needed because it is referring to insulation of the vapor lines of a split-system HVAC system. If this section is deleted, the user will have to rely on Section R1103.3 which only requires R-2 insulation for mechanical system piping instead of the R-4 required by this section. This could cause condensation damage in the house.

Assembly Action: **None**

RM7-07/08

Committee Action: **Disapproved**

Committee Reason: These appliances are already covered by the listing requirements of Section M1302. If they are listed, they are allowed to be used. If they are not listed, they should not be installed. Many of these appliances are portable, therefore this would be very difficult to enforce.

Assembly Action: **None**

RM8-07/08

Committee Action: **Approved as Submitted**

Committee Reason: This change is needed to make the IRC consistent with the IMC on this topic. The current IRC language prohibits the fasteners from extending into the duct. It is possible for fasteners, such as pop rivets, to penetrate the duct wall without obstructing the air flow in the duct, which is the real intent of this section. Without this change, taping would be the only means of joining the duct without penetrating the duct wall.

Assembly Action: **None**

RM9-07/08

Committee Action: **Disapproved**

Committee Reason: There was no technical justification presented to warrant reducing the maximum duct length to 25 feet. If the manufacturer's installation instructions specify less than 35 feet, those instructions should be followed.

Assembly Action: **None**

RM10-07/08

Committee Action: **Approved as Submitted**

Committee Reason: Where longer dryer exhaust ducts are installed as allowed by Exception 1 and are concealed in building construction, it is not possible to determine the installed length when subsequent tenants move into the house. This addition to Exception 1 will require a sign or tag to be placed near the exhaust duct to notify the new tenant in case their clothes dryer is not listed for the longer duct. This is consistent with similar language in the IMC.

Assembly Action: **None**

RM11-07/08

Committee Action: **Disapproved**

Committee Reason: This code change is too restrictive because it would preclude the use of other options available on the market, such as cooking appliances with down-draft exhaust systems.

Assembly Action: **None**

RM12-07/08

Committee Action: **Disapproved**

Committee Reason: There was no supporting data presented by the proponent that demonstrated that there is a problem with natural ventilation in existing houses. This code change would allow the residents to manually operate the exhaust fan. There is no way to force them to turn the fan on or to insure they will turn it off when cooking operations are complete which would cause energy to be wasted.

Assembly Action: **None**

RM13-07/08

Committee Action: **Disapproved**

Committee Reason: There was no supporting data presented by the proponent that demonstrated that there is a problem with natural ventilation in existing houses. This code change would allow the residents to manually operate the exhaust fans. There is no way to force them to turn the fan on or to insure they will turn it off when bathroom use or cooking operations are complete which would cause energy to be wasted.

Assembly Action: **None**

RM14-07/08

Committee Action: **Disapproved**

Committee Reason: The use of only two fasteners will result in the duct connection having a hinged effect which can allow movement and eventual failure of the joint. Exception 2 adequately addresses this issue.

Assembly Action: **None**

RM15-07/08

Note: The following analysis was not in the Code Change Proposal book but was posted on the ICC website.

Analysis: Review of proposed new standard ASTM E 1554-03 indicated that, in the opinion of ICC Staff, the standard did comply with ICC standards criteria.

Committee Action: **Disapproved**

Committee Reason: There was no technical data to show that there is a real problem with contaminants entering the house through the ducts in the garage. There was some question of the proponent's reason statement that many garages are being constructed almost as tightly as the house.

Assembly Action: **None**

RM16-07/08

Committee Action:

Approved as Submitted

Committee Reason: This code change is needed to permit fuel gas lines and plumbing waste cleanouts to be located in unvented crawl spaces. Such spaces receive some conditioned air from the occupied space but are not intended to be supply air plenums as described in the main body of this section.

Assembly Action:

None

RM17-07/08

Committee Action:

Approved as Submitted

Committee Reason: Fuel gas lines are covered in Chapter 24 which includes coverage of plenums. Removing the term from this section will prevent a scoping conflict between Chapters 16 and 24.

Assembly Action:

None

RM18-07/08

Committee Action:

Approved as Modified

Modify proposal as follows:

R408.3 (Supp) Unvented crawl space. Ventilation openings in under-floor spaces specified in Sections R408.1 and R408.2 shall not be required where:

1. Exposed earth is covered with a continuous Class I vapor retarder. Joints of the vapor retarder shall overlap by 6 inches (152 mm) and shall be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches (152 mm) up the stem wall and shall be attached and sealed to the stem wall; and
2. One of the following is provided for the under-floor space:
 - 2.1. Continuously operated mechanical exhaust ventilation at a rate equal to 1 cfm (0.47 L/s) for each 50 ft² (4.7m²) of crawlspace floor area, including an air pathway to the common area (such as a duct or transfer grille), and perimeter walls insulated in accordance with Section N1102.2.8;
 - 2.2. Conditioned air supply sized to deliver at a rate equal to 1 cfm (0.47 L/s) for each 50 ft² (4.7 m²) of under-floor area, including a return air pathway to the common area (such as a duct or transfer grille), and perimeter walls insulated in accordance with Section N1102.2.8;
 - 2.3. Plenum in existing structures complying with Section M1601.4, if under-floor space is used as a plenum.

M1601.4 Under-floor plenums. Under-floor plenums shall be prohibited in new structures. Modification or repairs to under-floor plenums in existing structures shall conform to the requirements of this section.

M1601.4.1 General. The space shall be cleaned of loose combustible materials and scrap, and shall be tightly enclosed. The ground surface of the space shall be covered with a moisture barrier having a minimum thickness or 4 mils (0.1 mm). ~~Fuel gas lines and~~ Plumbing waste cleanouts shall not be located within the space.

Committee Reason: The intent of this code change is to prohibit the use of crawl spaces in new houses as plenums because of excess air leakage from such use and the potential for mold spores to be introduced into the living space. Such use is still allowed in existing houses. The modification deletes the term "fuel gas lines and" to be consistent with the action taken on RM17-07/08.

Assembly Action:

None

RM19-07/08

Committee Action:

Disapproved

Committee Reason: This disapproval is consistent with the action taken by the IFGC Committee on FG16-07/08. Replacing the term "storage" with "clothes or other similar" closets does not improve the code. Fuel-fired appliances should not be allowed in any type of storage closet.

Assembly Action:

None

RM20-07/08

Committee Action:

Approved as Submitted

Committee Reason: Updating the editions of the referenced standards as proposed is consistent with the intent of the standards promulgators and the ICC policy for referenced standards.

Assembly Action:

None
