2. Add standard to Chapter 13 as follows:

ASSE
1061–06 Performance Requirements for Removable and Non Removable Push Fit Fittings

PART II – IRC PLUMBING

1. Revise as follows:

P2904.9.1.4.2 Mechanical joints. Mechanical joints shall be installed in accordance with the manufacturer's instructions. Fittings for cross-linked polyethylene (PEX) plastic tubing as described in ASTM F 877, ASTM F 1807, ASTM F 1960, ~~and~~ ASTM F 2080, and ASSE 1061 shall be installed in accordance with the manufacturer's installation instructions.

2. Add standard to Chapter 43 as follows:

ASSE
1061–06 Performance Requirements for Removable and Non Removable Push Fit Fittings

Reason: This code change will recognize the new technologies for connection systems that comply with appropriate performance standards.
ASSE 1061 is the appropriate standard for this type of fitting.

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

Analysis: Results of the review of the proposed standard(s) will be posted on the ICC website by August 20, 2006.

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P80–06/07
605.17.2; IRC P2904.9.1.4.2

Proponent: Michael W. Cudahy, Plastic Pipe and Fittings Association (PPFA)

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

605.17.2 Mechanical joints. Mechanical joints shall be installed in accordance with the manufacturer's instructions. Fittings for cross-linked polyethylene (PEX) plastic tubing as described in ASTM F 877, ASTM F 1807, ASTM F 1960, and ASTM F 2080 shall be installed in accordance with the manufacturer's instructions. PEX tubing shall be factory marked with the appropriate standards for the fittings with which the tubing is approved for use.

PART II – IRC PLUMBING

Revise as follows:

P2904.9.1.4.2 Mechanical joints. Mechanical joints shall be installed in accordance with the manufacturer's instructions. Fittings for cross-linked polyethylene (PEX) plastic tubing as described in ASTM F 877, ASTM F 1807, ASTM F 1960, and ASTM F 2080 shall be installed in accordance with the manufacturer's installation instructions. PEX tubing shall be factory marked with the appropriate standards for the fittings with which the tubing is approved for use.

Reason: To make sure proper combinations of pipe and fittings for PEX are used.
This language will help insure that PEX pipe and fitting systems are properly selected.
PEX pipe is commonly marked with the fittings systems that are approved for use with the pipe.

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

Analysis: The term "approved" is defined in the code and appears to be used in the wrong context. The tubing manufacturer determines the type of fittings to be used.

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P81–06/07
605.17.2; IRC P2904.9.1.4.2

Proponent: Robert Friedlander, Construction Code Consultants, representing Vanguard Piping Systems

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

605.17.2 Mechanical joints. Mechanical joints shall be installed in accordance with the manufacturer's instructions. Fittings for cross-linked polyethylene (PEX) plastic tubing as described in ASTM F 877, ASTM F 1807, ASTM F 1960, ~~and~~ ASTM F 2080 and ASTM F2159 shall be installed in accordance with the manufacturer's instructions.

PART II – IRC PLUMBING

Revise as follows:

P2904.9.1.4.2 Mechanical joints. Mechanical joints shall be installed in accordance with the manufacturer's instructions. Fittings for cross-linked polyethylene (PEX) plastic tubing as described in ASTM F877, ASTM F1807, ASTM F1960, ~~and~~ ASTM F2080 and ASTM F2159 shall be installed in accordance with the manufacturer's instructions.

Reason: The inclusion of this standard in Tables 605.5 and P2904.6 (P51-04/05) was approved by the committee during the 2005 hearings in Cincinnati and affirmed by the general membership. I had not submitted it for Sections 605.17.2 and P2904.9.1.4.2, this proposal is to rectify that mistake.

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P82–06/07
605.17.2, Chapter 13; IRC P2904.9.1.4.2, Chapter 43

Proponent: Michael W. Cudahy, Plastic Pipe and Fittings Association (PPFA)

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

1. Revise as follows:

605.17.2 Mechanical joints. Mechanical joints shall be installed in accordance with the manufacturer's instructions. Fittings for cross-linked polyethylene (PEX) plastic tubing as described in ASTM F 877, ASTM F 1807, ASTM F 1960,

~~and~~ ASTM F 2080, ASTM F2098, ASTM F2159 and ASTM F2434 shall be installed in accordance with the manufacturer's instructions.

2. Add standards to Chapter 13 as follows:

ASTM

F 2098–04e1	Standard Specification for Stainless Steel Clamps for Securing SDR9 Cross-linked Polyethylene (PEX) Tubing to Metal Insert Fittings
F 2434–05	Standard Specification for Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Cross-linked Polyethylene/Aluminum/Cross-linked Polyethylene (PEX-AL-PEX) Tubing

PART II – IRC PLUMBING

1, Revise as follows:

P2904.9.1.4.2 Mechanical joints. Mechanical joints shall be installed in accordance with the manufacturer's instructions. Fittings for cross-linked polyethylene (PEX) plastic tubing as described in ASTM F 877, ASTM F 1807, ASTM F 1960, ~~and~~ ASTM F 2080, ASTM F2098, ASTM F2159 and ASTM F2434 shall be installed in accordance with the manufacturer's instructions.

2. Add standards to Chapter 43 as follows:

ASTM

F 2098–04e1	Standard Specification for Stainless Steel Clamps for Securing SDR9 Cross-linked Polyethylene (PEX) Tubing to Metal Insert Fittings
F 2434–05	Standard Specification for Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Cross-linked Polyethylene/Aluminum/Cross-linked Polyethylene (PEX-AL-PEX) Tubing

Reason: The purpose of this code change is to add relevant ASTM standards for PEX fittings to the section.

ASTM F2098-04e1 Standard Specification for Stainless Steel Clamps for Securing SDR9 Cross-linked Polyethylene (PEX) Tubing to Metal Insert Fittings; ASTM F2159-05 Standard Specification for Plastic Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and ASTM F2434-05 Standard Specification for Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Cross-linked Polyethylene/Aluminum/Cross-linked Polyethylene (PEX-AL-PEX) Tubing are active ASTM PEX fitting standards and should be included in this section.

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

Analysis: Results of the review of the proposed standard(s) will be posted on the ICC website by August 20, 2006.

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P83–06/07

605.22 (New), 605.22.1 (New); IRC P2904.11 (New), P2904.11.1

Proponent: Larry Gill, Ipex, Inc.

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Add new text as follows:

605.22 Polyethylene/Aluminum/Polyethylene (PE-AL-PE) and Cross-linked Polyethylene/Aluminum/Cross-linked Polyethylene (PEX-AL-PEX). Joints between PE-AL-PE and PEX-AL-PEX pipe and fittings shall comply with section 605.22.1

605.22.1 Mechanical Joints. Mechanical joints shall be installed in accordance with the manufacturer's instructions. Fittings for PE-AL-PE and PEX-AL-PEX as described in ASTM F 1974; ASTM F 1281, ASTM F 1282, CSA B137.9, and CSA B137.10 shall be installed in accordance with the manufacturer's instructions.

PART II – IRC PLUMBING

Add new text as follows:

P2904.11 Cross-linked polyethylene/aluminum/cross-linked polyethylene. Joints between Polyethylene/Aluminum/Polyethylene (PE-AL-PE) and Cross-linked Polyethylene/Aluminum/Cross-linked Polyethylene (PEX-AL-PEX) pipe and fittings shall comply with Section P2904.11.1

P2904.11.1 Mechanical joints. Mechanical joints shall be installed in accordance with the manufacturer's instructions. Fittings for PE-AL-PE and PEX-AL-PEX as described in ASTM F1974, ASTM F1281, ASTM F1282, CSA B137.9 and CSA B137.10 shall be installed in accordance with the manufacturer's instructions.

Reason: The purpose of this code change is to add a new clause to have the IPC and IRC include all of the current certified fittings for PE-AL-PE and PEX-AL-PEX pipe. The new clause clarifies that mechanical joints are to be installed in accordance with manufacturer's instructions. This text is similar to that used by other similar products in the Code.

The standards that are proposed to be added include provisions for fittings and NSF International certifies fittings to these standards. These standards are not new to the IPC. They are currently listed in the pipe Table 605.3 and 605.4 of the IPC.

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P84–06/07
605.24.1, Chapter 13

Proponent: Rand Ackroyd, Rand Engineering, Inc.

1. Revise as follows:

605.24.1 Copper or copper-alloy tubing to galvanized steel pipe. Joints between copper or copper-alloy tubing and galvanized steel pipe shall be made with a brass fitting or dielectric fitting or dielectric union conforming to ASSE 1079. The copper tubing shall be soldered to the fitting in an approved manner, and the fitting shall be screwed to the threaded pipe.

2. Add standard to Chapter 13 as follows:

ASSE
1079–05 Dielectric Pipe Unions

Reason: Clarify and add new requirements to the Code.

A consensus standard has been developed for ASSE 1079 "Dielectric Pipe Unions".

The ASSE Standard includes performance testing criteria appropriate for dielectric fittings for plumbing systems.

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

Analysis: Results of the review of the proposed standard(s) will be posted on the ICC website by August 20, 2006.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P85–06/07
605.24.3, Chapter 13

Proponent: Rand Ackroyd, Rand Engineering, Inc.

1. Revise as follows:

605.24.3 Stainless steel. Joints between stainless steel and different piping materials shall be made with a mechanical joint of the compression or mechanical sealing type or a dielectric fitting or dielectric union conforming to ASSE 1079.

2. Add standard to Chapter 13 as follows:

ASSE
1079–05 Dielectric Pipe Unions

Reason: The purpose of this code change is to clarify and add new requirements to the Code.
A consensus standard has been developed , ASSE 1079 "Dielectric Pipe Unions".
The ASSE Standard includes performance testing criteria appropriate for dielectric fittings for plumbing systems.

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

Analysis: Results of the review of the proposed standard(s) will be posted on the ICC website by August 20, 2006.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P86–06/07
Table 608.1, IRC Table P2902.3

Proponent: Paul Bladdick and Barry Pines, Code Study Development Group of Southeast Michigan

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise table as follows:

TABLE 608.1
APPLICATION OF BACKFLOW PREVENTERS

DEVICE	DEGREE OF HAZARD	APPLICATION	APPLICABLE STANDARDS
Antisiphon-type fill valves for gravity water closet flush tanks	High hazard	Backsiphonage only	ASSE 1002~~, CSA B125~~
Backflow preventer for carbonated beverage machines	Low hazard	Backpressure or backsiphonage Sizes 1/4″-3/8″	ASSE 1022~~, CSA B64.3.1~~
Backflow preventer with intermediate atmospheric vents	Low hazard	Backpressure or backsiphonage Sizes 1/4″-3/4″	ASSE 1012~~, CSA B64.3~~
Double check backflow prevention assembly and double check fire protection backflow prevention assembly	Low hazard	Backpressure or backsiphonage Sizes 3/8″-16″	ASSE 1015, AWWA C510~~, CSA B64.5, CSA B64.5.1~~
Dual-check-valve-type backflow preventer	Low hazard	Backpressure or backsiphonage Sizes 1/4″-1″	ASSE 1024~~, CSA B64.6~~
Hose connection backflow preventer	High or low hazard	Low head backpressure, rated working pressure, backpressure or backsiphonage Sizes 1/2″-1″	ASSE 1052~~, CSA B64.2.1.1~~
Hose connection vacuum breaker	High or low hazard	Low head backpressure or backsiphonage Sizes 1/2″, 3/4″, 1″	ASSE 1011~~, CSA B64.2, CSA B64.2.1~~
Laboratory faucet backflow preventer	High or low hazard	Low head backpressure and backsiphonage	ASSE 1035~~, CSA B64.7~~
Pipe-applied atmospheric-type vacuum breaker	High or low hazard	Backsiphonage only Sizes 1/4″-4″	ASSE 1001~~, CSA B64.1.1~~
Pressure vacuum breaker assembly	High or low hazard	Backsiphonage only Sizes 1/2″-2″	ASSE 1020~~, CSA B64.1.2~~
Reduced pressure principle backflow preventer and reduced pressure principle fire protection backflow preventer	High or low hazard	Backpressure or backsiphonage Sizes 3/8″-16″	ASSE 1013, AWWA C511, ~~CSA B64.4, CSA B64.4.1~~
Vacuum breaker wall hydrants, frost-resistant, automatic draining type	High or low hazard	Low head backpressure or backsiphonage Sizes 3/4″-1″	ASSE 1019~~, CSA B64.2.2~~

(Portions of table not shown do not change)

PART II – IRC PLUMBING

Revise table as follows:

TABLE P2902.3
APPLICATION OF BACKFLOW PREVENTERS

DEVICE	DEGREE OF HAZARD	APPLICATION	APPLICABLE STANDARDS
Antisiphon-type fill valves for gravity water closet flush tanks	High hazard	Backsiphonage only	ASSE 1002~~, CSA B125~~
Backflow preventer for carbonated beverage machines	Low hazard	Backpressure or backsiphonage Sizes 1/4″-3/8″	ASSE 1022~~, CSA B64.3.1~~
Backflow preventer with intermediate atmospheric vents	Low hazard	Backpressure or backsiphonage Sizes 1/4″-3/4″	ASSE 1012~~, CSA B64.3~~
Double check backflow prevention assembly and double check fire protection backflow prevention assembly	Low hazard	Backpressure or backsiphonage Sizes 3/8″-16″	ASSE 1015, AWWA C510~~, CSA B64.5, CSA B64.5.1~~
Dual-check-valve-type backflow preventer	Low hazard	Backpressure or backsiphonage Sizes 1/4″-1″	ASSE 1024~~, CSA B64.6~~
Hose connection backflow preventer	High or low hazard	Low head backpressure, rated working pressure, backpressure or backsiphonage Sizes 1/2″-1″	ASSE 1052~~, CSA B64.2.1.1~~
Hose connection vacuum breaker	High or low hazard	Low head backpressure or backsiphonage Sizes 1/2″, 3/4″, 1″	ASSE 1011~~, CSA B64.2, CSA B64.2.1~~
Laboratory faucet backflow preventer	High or low hazard	Low head backpressure and backsiphonage	ASSE 1035~~, CSA B64.7~~
Pipe-applied atmospheric-type vacuum breaker	High or low hazard	Backsiphonage only Sizes 1/4″-4″	ASSE 1001~~, CSA B64.1.1~~
Pressure vacuum breaker assembly	High or low hazard	Backsiphonage only Sizes 1/2″-2″	ASSE 1020~~, CSA B64.1.2~~
Reduced pressure principle backflow preventer and reduced pressure principle fire protection backflow preventer	High or low hazard	Backpressure or backsiphonage Sizes 3/8″-16″	ASSE 1013, AWWA C511, ~~CSA B64.4, CSA B64.4.1~~
Vacuum breaker wall hydrants, frost-resistant, automatic draining type	High or low hazard	Low head backpressure or backsiphonage Sizes 3/4″-1″	ASSE 1019~~, CSA B64.2.2~~

(Portions of table not shown do not change)

Reason: The CSA B64 Standards were included in the IPC and IRC under the premise that they are same as the ASSE Standards. Upon in depth analysis, they are significantly different from the ASSE Standards. Some of the differences include different names of the devices and different abbreviations, different performance requirements, different material requirements, and different test requirements. The CSA standards are not promulgated under the ANSI process and procedures. The CSA B64 standards use metric measurements vs. English measurements. The CSA standards do not specify the order the tests should be conducted.

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

PART I – IPC

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

PART II – IRC PLUMBING

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P87–06/07
608.7; IRC P2903.9.5 (New)

Proponent: Jud Collins, JULYCO

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

608.7 ~~Stop-and-waste~~ Valves and outlets prohibited below grade. Potable water outlets and combination stop-and-waste valves, ~~or cocks~~ shall not be installed underground or below grade. Freeze proof yard hydrants that drain the riser into the ground are considered to be stop-and-waste valves.

> **Exception:** Freeze proof yard hydrants that drain the riser into the ground shall be permitted to be installed provided that the potable water supply to such hydrants is protected upstream of the hydrants in accordance with Section 608 and the hydrants are permanently identified as nonpotable outlets by approved signage that reads as follows: "Caution, Nonpotable Water. Do Not Drink."

PART II – IRC PLUMBING

Add new text as follows:

P2903.9.5 Valves and outlets prohibited below grade. Potable water outlets and combination stop-and-waste valves, shall not be installed underground or below grade. Freeze proof yard hydrants that drain the riser into the ground are considered to be stop-and-waste valves.

> **Exception:** Freeze proof yard hydrants that drain the riser into the ground shall be permitted to be installed provided that the potable water supply to such hydrants is protected upstream of the hydrants in accordance with Section 608 and the hydrants are permanently identified as nonpotable outlets by approved signage that reads as follows: "Caution, Nonpotable Water. Do Not Drink."

Reason: A similar proposal was submitted last code cycle. It contained a standard that was questioned by some as being appropriate. This proposal deleted that standard reference. This is a clarification of the code's current requirements. Yard hydrants that drain the riser into the soil are a type of "stop-and-waste" valve. It does not add anything new. It states clearly that openings installed underground shall be properly protected from cross connections. It also deletes an antiquated term that need not be used in the IPC. The exception recognizes common practice for such hydrants in public parks, campgrounds, etc. This section does not address sanitary yard hydrants that do not drain into the ground.

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P88–06/07
608.13.2, IRC P2902.3.5

Proponent: Paul Bladdick and Barry Pines, Code Study Development Group of Southeast Michigan

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

608.13.2 Reduced pressure principle backflow preventers. Reduced pressure principle backflow preventers shall conform to ASSE 1013, or AWWA C511, ~~CSA B64.4 or CSA B64.4.1~~. Reduced pressure detector assembly backflow

preventers shall conform to ASSE 1047. These devices shall be permitted to be installed where subject to continuous pressure conditions. The relief opening shall discharge by air gap and shall be prevented from being submerged.

PART II – IRC PLUMBING

Revise as follows:

P2902.3.5 Reduced pressure principle backflow preventers. Reduced pressure principle backflow preventers shall conform to ASSE 1013, or AWWA C511~~, CSA B64.4 or CSA B64.4.1~~. Reduced pressure detector assembly backflow preventers shall conform to ASSE 1047. These devices shall be permitted to be installed where subject to continuous pressure conditions. The relief opening shall discharge by air gap and shall be prevented from being submerged.

Reason: The CSA B64 Standards were included in the IPC and IRC under the premise that they are same as the ASSE Standards. Upon in depth analysis, they are significantly different from the ASSE Standards. Some of the differences include different names of the devices and different abbreviations, different performance requirements, different material requirements, and different test requirements. The CSA standards are not promulgated under the ANSI process and procedures. The CSA B64 standards use metric measurements vs. English measurements. The CSA standards do not specify the order the tests should be conducted.

B64.4-01 has no provisions for testing manifold designs; ASSE 1013-2005 does.
B64.4-01 has no requirement for servicing the assembly without removing it from the line; ASSE 1013-2005 does.
B64.4-01 does not have hydrostatic tests at twice the working pressure of the second check; ASSE 1013-2005 does.
B64.4-01 does not have a test to verify that the relief valve will drain the water in the intermediate zone below the first check; ASSE 1013-2005 does.
B64.4-01 does not have a minimum copper content specified for bronze alloy; ASSE does.
B64.4-01 does not require cold water rated assemblies to undergo a deterioration test - it only requires hot water devices to be tested. ASSE 1013-2005 requires that cold water devices be tested at 140 F.
During the cycle test, the CSA B64.4-01 does not verify that the check valve reseals.
B64.4.1-01 has no provisions for testing manifold designs; ASSE 1013-2005 does.
B64.4.1-01 has no requirement for servicing the assembly without removing it from the line; ASSE 1013-2005 does.
B64.4.1-01 does not have hydrostatic tests at twice the working pressure of the second check; ASSE 1013-2005 does.
B64.4.1-01 does not have a test to verify that the relief valve will drain the water in the intermediate zone below the first check; ASSE 1013-2005 does.
B64.4.1-01 does not have a minimum copper content specified for bronze alloy; ASSE does.
B64.4.1-01 does not require cold water rated assemblies to undergo a deterioration test - it only requires hot water devices to be tested. ASSE 1013-2005 requires that cold water devices be tested at 140 F.
During the cycle test, the CSA B64.4-01 does not verify that the check valve reseals.
B64.4.1-01's pressure drop requirements are different from ASSE 1013-2005.
B64.4.1-01 does not have a requirement to monitor the pressure drop from 0 to 50 psi; ASSE 1013-2005 does.
B64.4.1-01 does not have a relief/supply pressure fluctuation test at 15 psi; ASSE 1013-2005 does.

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P89–06/07
608.13.3, IRC P2902.3.3

Proponent: Paul Bladdick and Barry Pines, Code Study Development Group of Southeast Michigan

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

608.13.3 Backflow preventer with intermediate atmospheric vent. Backflow preventers with intermediate atmospheric vents shall conform to ASSE 1012~~ or CSA B64.3~~. These devices shall be permitted to be installed where subject to continuous pressure conditions. The relief opening shall discharge by air gap and shall be prevented from being submerged.

PART II – IRC PLUMBING

Revise as follows:

P2902.3.3 Backflow preventer with intermediate atmospheric vent. Backflow preventers with intermediate atmospheric vents shall conform to ASSE 1012~~ or CSA CAN/CSA B64.3~~. These devices shall be permitted to be installed where subject to continuous pressure conditions. The relief opening shall discharge by air gap and shall be prevented from being submerged.

Reason: The CSA B64 Standards were included in the IPC and IRC under the premise that they are same as the ASSE Standards. Upon in depth analysis, they are significantly different from the ASSE Standards. Some of the differences include different names of the devices and different abbreviations, different performance requirements, different material requirements, and different test requirements. The CSA standards are not promulgated under the ANSI process and procedures. The CSA B64 standards use metric measurements vs. English measurements. The CSA standards do not specify the order the tests should be conducted.

CSA B64.3-01's backpressure requirements are only half of ASSE 1012-2002 requirements.

ASSE 1012-2002 has a shock (water hammer) test; CSA B64.3 does not.

CSA B64.3-01's check valve sealing test is a resistance to opening test, whereas ASSE 1012-2001's is a resealing test.

CSA B64.3-01 title, *Backflow Preventers, Dual Check Valve Type with Atmospheric Port*, is different from ASSE 1012-2002, therefore causing confusion to the end user of the IPC.

CSA B64.3-01 does not have a vent port leakage test at various flows; ASSE 1012-2002 does.

CSA B64.3 does not have a life cycle test; ASSE 1012-2004 does.

CSA B64.3 does not require cold water rated devices to undergo a deterioration test - it only requires hot water devices to be tested. ASSE 1012-2002 does not allow for a device to be rated for cold water only.

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P90–06/07
608.13.5

Proponent: Rand Ackroyd, Rand Engineering, Inc.

Revise as follows:

608.13.5 Pressure-type vacuum breakers. Pressure-type vacuum breakers shall conform to ASSE 1020 or CSA B64.1.2 and spillproof vacuum breakers shall comply with ASSE 1056. These devices are designed for installation under continuous pressure conditions when the critical level is installed at the required height. Pressure-type vacuum breakers shall not be installed in locations where spillage could cause damage to the structure. ASSE 1020 and CSA B64.1.2 vacuum breakers are recommended for outdoor installation only.

Reason: Clarify the Code. ASSE 1020 and CSA standards for Pressure vacuum breakers allow water discharge

The Pressure Type Vacuum breakers have special requirements for re-pressurizing. When a building is de-pressurized for work on the plumbing system the vacuum breaker vent opens. Before the building is re-pressurized the shut off on the inlet vacuum breaker must be closed. After the plumbing system is back to full pressure then the pressure vacuum breaker can be re-pressurized by the plumber. If the system is pressurized slowly and the pressure vacuum breaker is not isolated a tremendous amount of water can discharge from the vent until there is enough pressure to cause the vent on the pressure vacuum breaker to close. In a office complex the plumber may not know there is a pressure vacuum breaker in one or more of the offices.

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

Analysis: Recommendations are not consistent with ICC code text style and format and are not enforceable.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P91–06/07
608.13.5

Proponent: Paul Bladdick and Barry Pines, Code Study Development Group of Southeast Michigan

Revise as follows:

608.13.5 Pressure-type vacuum breakers. Pressure-type vacuum breakers shall conform to ASSE 1020 ~~or CSA B64.1.2~~ and spillproof vacuum breakers shall comply with ASSE 1056. These devices are designed for installation

under continuous pressure conditions when the critical level is installed at the required height. Pressure-type vacuum breakers shall not be installed in locations where spillage could cause damage to the structure.

Reason: The purpose of this code change is to delete current requirements.

The CSA B64 Standards were included in the IPC under the premise that they are same as the ASSE Standards. Upon in depth analysis, they are significantly different from the ASSE Standards. Some of the differences include different names of the devices and different abbreviations, different performance requirements, different material requirements, and different test requirements. The CSA standards are not promulgated under the ANSI process and procedures. The CSA B64 standards use metric measurements vs. English measurements. The CSA standards do not specify the order the tests should be conducted.

CSA has no minimum corrosion benchmark requirements. ASSE requires materials to have a corrosion resistance equal to at least 78% copper.

CSA standard covers PVB larger than 2 inches that require two check valves. ASSE does not recognize this style of PVB in ASSE 1020-2004.

CSA B64.1.2-01's check valve sealing test is a resistance to opening test, whereas ASSE 1020-2004's is a resealing test. The CSA test does not verify the resealing of the check valve.

CSA B64.1.2-01 only verifies the check valve functioning once, whereas ASSE verifies the check valve functioning five times (four times during the cycle test).

During the cycle test, the CSA B64.1.2-01 does not verify that the check valve reseals.

ASSE 1020-2004 has a shock (water hammer) test; CSA B64.1.2 does not.

ASSE 1020-2004 includes an air passage comparative areas test; CSA B64.1.2 does not.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P92–06/07
608.13.6, IRC P2902.3.2

Proponent: Paul Bladdick and Barry Pines, Code Study Development Group of Southeast Michigan

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

608.13.6 Atmospheric-type vacuum breakers. Pipe-applied atmospheric-type vacuum breakers shall conform to ASSE 1001~~ or CSA B64.1.1~~. Hose-connection vacuum breakers shall conform to ASSE 1011, ASSE 1019, ASSE 1035, or ASSE 1052~~, CSA B64.2, CSA B64.2.1, CSA B64.2.1.1, CSA B64.2.2 or CSA B64.7~~. These devices shall operate under normal atmospheric pressure when the critical level is installed at the required height.

PART II – IRC PLUMBING

Revise as follows:

P2902.3.2 Atmospheric-type vacuum breakers. Pipe-applied atmospheric-type vacuum breakers shall conform to ASSE 1001~~ or CSA B64.1.1~~. Hose-connection vacuum breakers shall conform to ASSE 1011, ASSE 1019, ASSE 1035, or ASSE 1052~~, CSA B64.2, CSA B64.2.1, CSA B64.2.1.1, CSA B64.2.2 or CSA B64.7~~. These devices shall operate under normal atmospheric pressure when the critical level is installed at the required height.

Reason: The CSA B64 Standards were included in the IPC and IRC under the premise that they are same as the ASSE Standards. Upon in depth analysis, they are significantly different from the ASSE Standards. Some of the differences include different names of the devices and different abbreviations, different performance requirements, different material requirements, and different test requirements. The CSA standards are not promulgated under the ANSI process and procedures. The CSA B64 standards use metric measurements vs. English measurements. The CSA standards do not specify the order the tests should be conducted.

ASSE 1001-2002 has a test for cold water deterioration for the AVB; CSA B64.1.1-01 does not.

ASSE 1001-2002 has a minimum unobstructed passageway requirement; CSA B64.1.1-01 does not.

ASSE 1001-2002 has an air flow test; CSA B64.1.1-01 does not.

ASSE 1001-2002 evaluates a test to verify the thread depth of the AVB; B64.1.1-01 does not.

ASSE 1001-2002 defines the maximum allowable continuous pressure as 12 hours; the CSA B64.1.1-01 does not have a maximum time period.

CSA B64.2-01 requires hose connection vacuum breakers meet NSF 61; ASSE does not because devices/assemblies with hose threaded outlets are exempt from NSF 61.

CSA B64.2-01 allows a hose connection vacuum breakers to be removable. ASSE 1011-2004 requires them to be permanently installed. CSA B64.2-01 requires a hose connection vacuum breakers to meet B64.0, Section 4.3, Repairs and Replacement of Parts. Hose connection vacuum breakers are not repairable in the field.

ASSE 1011-2004 has a life cycle test; CSA B64.2-01 does not.

CSA B64.2-01 allows for cold water ratings, whereas ASSE 1011-2004 does not allow for a device to be rated for cold water only.

The product covered by CSA B64.2.1-01 is a hose connection vacuum breaker with a marketing feature that is not required by the ASSE Standard 1011-2004. ASSE does not include marketing features in their standards.

The product covered by CSA B64.2.2-01 is a hose connection vacuum breaker with a marketing feature that is not required by the ASSE Standard 1011-2004. ASSE does not include marketing features in their standards.

CSA B64.7.1-01's check valve sealing test is a resistance to opening test, whereas ASSE 1035-2002's is a resealing test. The CSA test does not verify the resealing of the check valve.

B64.6-01's title, *Vacuum Breaker, Laboratory Faucet Type*, is different from the ASSE 1035-2002 title, *Laboratory Faucet Backflow Preventer,* therefore causing confusion to the end user of the IPC.

CSA B64.2.1.1-01 title, Vacuum Breakers, Hose Connection Type (HCVB) with Manual Draining Feature, is different from ASSE 1052-2004, therefore causing confusion to the end user of the IPC.

ASSE 1052-2004 has a minimum temperature range of 140 °F (60 °C); the CSA B64.2.1.1-01 has a minimum temperature range of 113 °F (45 °C).

ASSE 1052-2004 has a test for cold water deterioration for the AVB; CSA B64.2.1.1-01 does not.

CSA B64.1.2-01's check valve sealing test is a resistance to opening test, whereas ASSE 1052-2004's is a resealing test. The CSA test does not verify the resealing of the check valve.

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P93–06/07
608.13.7, IRC P2902.3.6

Proponent: Paul Bladdick and Barry Pines, Code Study Development Group of Southeast Michigan

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC-P CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

608.13.7 Double check-valve assemblies. Double check-valve assemblies shall conform to ASSE 1015~~, CSA B64.5, CSA B64.5.1~~ or AWWA C510. Double-detector check-valve assemblies shall conform to ASSE 1048. These devices shall be capable of operating under continuous pressure conditions.

PART II – IRC-P

Revise as follows:

P2902.3.6 Double check-valve assemblies. Double check-valve assemblies shall conform to ASSE 1015~~, CSA B64.5, CSA B64.5.1~~ or AWWA C510. Double-detector check-valve assemblies shall conform to ASSE 1048. These devices shall be capable of operating under continuous pressure conditions.

Reason: The CSA B64 Standards were included in the IPC under the premise that they are same as the ASSE Standards. Upon in depth analysis, they are significantly different from the ASSE Standards. Some of the differences include different names of the devices and different abbreviations, different performance requirements, different material requirements, and different test requirements. The CSA standards are not promulgated under the ANSI process and procedures. The CSA B64 standards use metric measurements vs. English measurements. The CSA standards do not specify the order the tests should be conducted.

B64.5-01's title and acronym, *Backflow Preventers, Double Check Valve Type (DCVA)*, are different from the ASSE 1015-2005 title and acronym, *Double Check Backflow Prevention Assembly and Double Check Fire Protection Backflow Prevention Assembly (DC and DCF)*, therefore causing confusion to the end user of the IPC. B64.5-01 has no provisions for testing manifold designs; ASSE 1015-2005 does. B64.5-01 has no requirement for servicing the assembly without removing it from the line; ASSE 1015-2005 does. B64.5-01 does not have hydrostatic tests at twice the working pressure of the first and second checks; ASSE 1015-2005 does. B64.5-01 does not have a minimum copper content specified for bronze alloy; ASSE 1015-2005 does. B64.5-01 does not require cold water rated assemblies to undergo a deterioration test - it only requires hot water devices to be tested. ASSE 1015-2005 requires that cold water devices be tested at 140 F. During the cycle test, the CSA B64.5-01 does not verify that the check valve reseals. B64.5.1-01 has no provisions for testing manifold designs; ASSE 1015-2005 does. B64.5.1-01 has no requirement for servicing the assembly without removing it from the line; ASSE 1015-2005 does. B64.5.1-01 does not have hydrostatic tests at twice the working pressure of the first and second checks; ASSE 1015-2005 does. B64.5.1-01 does not have a minimum copper content specified for bronze alloy; ASSE does. B64.5.1-01 does not require cold water rated assemblies to undergo a deterioration test - it only requires hot water devices to be tested. ASSE 1015-2005 requires that cold water devices be tested at 140 F. During the cycle test, the CSA B64.5-01 does not verify that the check valve reseals. B64.5.1-01's pressure drop requirements are different from ASSE 1015-2005. B64.5.1-01 does not have a requirement to monitor the pressure drop from 0 to 50 psi; ASSE 1015-2005 does. B64.5.1-01 allows a higher pressure at flow than ASSE 1015-2005.

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

PART I – IPC

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

PART II – IRC-P

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P94–06/07
608.14.2 (New), 608.14.2.1 (New)

Proponent: David M. Wenzlaff, Henrico County, Virginia, representing Virginia Plumbing and Mechanical Inspectors Association (VPMIA) and the Virginia Building Code Officials Association (VBCOA)

Add new text as follows:

608.14.2 Protection of backflow preventers. Backflow preventers shall not be located in areas subject to freezing except where they can be removed by means of unions or are protected from freezing by heat, insulation or both.

608.14.2.1 Relief port piping. The termination of the piping from the relief port or air gap fitting of a backflow preventer shall discharge to an approved indirect waste receptor or to the outdoors where it will not cause damage or create a nuisance.

Reason: There are some manufacturer's installation instructions that include this information and some that do not. This new text gives further clarity and guidance to both the installer and the code official as to proper location and uniformed installation of backflow preventers.

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

Analysis: See parallel proposal for Section P2902.6.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P95–06/07
608.15.4

Proponent: Lawrence Suggars, South Salt Lake City, representing Utah Chapter of ICC

Revise as follows:

608.15.4 Protection by a vacuum breaker. Openings and outlets shall be protected by atmospheric-type or pressure-type vacuum breakers. The critical level of the vacuum breaker shall be set a minimum of 6 inches (152 mm) above the flood level rim of the fixture or device. Fill valves shall be set in accordance with Section 425.3.1. Vacuum breakers shall not be installed under exhaust hoods or similar locations that will contain toxic fumes or vapors. Pipe-applied vacuum breakers shall be installed not less than 6 inches (152 mm) above the flood level rim of the fixture, receptor or device served. The critical level of a vacuum breaker serving a urinal shall be a minimum of 6 inches (152 mm) above the highest point of the urinal served.

Reason: The installation of the critical level for the flushometer valve serving a urinal is not the same as other fixtures and should not be lumped together under one design. The current code language is not sufficiently clear. For example the rules that govern the installation of a water closet with a flushometer valve generally are always ok if installed with the critical level at least six (6) inches above the overflow rim of the bowl. To install a urinal with a flushometer valve using the same design would be incorrect. As stated in the change submitted, the correct installation of a flushometer valve's critical level must be not less than six (6) inches above the fixture.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P96–06/07
608.16.1

Proponent: Julius Ballanco, P.E., JB Engineering and Code Consulting, P.C.

Revise as follows:

608.16.1 Beverage dispensers. The water supply connection to beverage dispensers shall be protected against backflow by a backflow preventer conforming to ASSE 1022, CSA B64.3.1 or by an air gap. The portion of the backflow preventer device downstream from the second check valve and the piping downstream therefrom shall not be affected by carbon dioxide gas.

Reason: I submitted this change originally. I have found that the section is not always being properly interpreted regarding the backflow preventer. Some ASSE 1022 devices have brass components in the area of the first check valve and the intermediate opening to the outside. The use of brass in these areas has no impact of the quality of the water supplying the carbonated beverage dispenser. The important components required to have non-copper or copper alloy material are from the second check valve and downstream from that check. This is the part of the system that can come in contact with carbonated water that may still be used in a carbonated beverage.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P97–06/07
608.16.1

Proponent: Paul Bladdick and Barry Pines, Code Study Development Group of Southeast Michigan

Revise as follows:

608.16.1 Beverage dispensers. The water supply connection to beverage dispensers shall be protected against backflow by a backflow preventer conforming to ASSE 1022~~, CSA B64.3.1~~ or by an air gap. The backflow preventer device and the piping downstream there from shall not be affected by carbon dioxide gas.

Reason: The CSA B64 Standards were included in the IPC under the premise that they are same as the ASSE Standards. Upon in depth analysis, they are significantly different from the ASSE Standards. Some of the differences include different names of the devices and different abbreviations, different performance requirements, different material requirements, and different test requirements. The CSA standards are not promulgated under the ANSI process and procedures. The CSA B64 standards use metric measurements vs. English measurements. The CSA standards do not specify the order the tests should be conducted.

CSA B64.3.1-01's check valve sealing test is a resistance to opening test, whereas ASSE 1022-2003's is a resealing test. The CSA test does not verify the resealing of the check valve. CSA B64.3-01 does not have a vent port leakage test at various flows; ASSE 1022-2003 does. CSA B64.3.1-01's endurance test uses a carbonator; ASSE 1022-2003 does not. It specifies the backpressure on the device instead. The CSA B64.3.1-01 endurance test produces only half of the backpressure required in ASSE 1022-2003. CSA B64.3.1-01's backpressure tests on the upstream and the downstream checks are conducted at half the pressure required by ASSE 1022-2003.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P98–06/07
608.16.2, IRC P2902.5.1

Proponent: Paul Bladdick and Barry Pines, Code Study Development Group of Southeast Michigan

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

608.16.2 Connections to boilers. The potable supply to the boiler shall be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1012 ~~or CSA B64.3~~. Where conditioning chemicals are introduced into the system, the potable water connection shall be protected by an air gap or a reduced pressure principle backflow preventer, complying with ASSE 1013~~, CSA B64.4~~ or AWWA C511.

PART II – IRC PLUMBING

Revise as follows:

P2902.5.1 Connections to boilers. The potable supply to the boiler shall be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1012 ~~or CSA B64.3~~. Where conditioning chemicals are introduced into the system, the potable water connection shall be protected by an air gap or a reduced pressure principle backflow preventer complying with ASSE 1013, CSA B64.3 or AWWA C511.

Reason: The CSA B64 Standards were included in the IPC under the premise that they are same as the ASSE Standards. Upon in depth analysis, they are significantly different from the ASSE Standards. Some of the differences include different names of the devices and different abbreviations, different performance requirements, different material requirements, and different test requirements. The CSA standards are not promulgated under the ANSI process and procedures. The CSA B64 standards use metric measurements vs. English measurements. The CSA standards do not specify the order the tests should be conducted.

CSA B64.3-01's backpressure requirements are only half of ASSE 1012-2002 requirements. ASSE 1012-2002 has a shock (water hammer) test; CSA B64.3 does not. CSA B64.3-01's check valve sealing test is a resistance to opening test, whereas ASSE 1012-2001's is a resealing test. CSA B64.3-01 title, *Backflow Preventers, Dual Check Valve Type with Atmospheric Port*, is different from ASSE 1012-2002, therefore causing confusion to the end user of the IPC. CSA B64.3-01 does not have a vent port leakage test at various flows; ASSE 1012-2002 does. CSA B64.3 does not have a life cycle test; ASSE 1012-2004 does. CSA B64.3 does not require cold water rated devices to undergo a deterioration test - it only requires hot water devices to be tested. ASSE 1012-2002 does not allow for a device to be rated for cold water only. B64.4-01 has no provisions for testing manifold designs; ASSE 1013-2005 does. B64.4-01 has no requirement for servicing the assembly without removing it from the line; ASSE 1013-2005 does. B64.4-01 does not have hydrostatic tests at twice the working pressure of the second check; ASSE 1013-2005 does. B64.4-01 does not have a test to verify that the relief valve will drain the water in the intermediate zone below the first check; ASSE 1013-2005 does. B64.4-01 does not have a minimum copper content specified for bronze alloy; ASSE does. B64.4-01 does not require cold water rated assemblies to undergo a deterioration test - it only requires hot water devices to be tested. ASSE 1013-2005 requires that cold water devices be tested at 140° F. During the cycle test, the CSA B64.4-01 does not verify that the check valve reseals.

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P99–06/07
608.16.4

Proponent: Michael D. Thuot, Fairfax County, Virginia, representing Virginia Plumbing and Mechanical Inspectors Association (VPMIA) and the Virginia Building Code Officials Association (VBCOA)

Revise as follows:

608.16.4 Connections to automatic fire sprinkler systems and standpipe systems. The potable water supply to automatic fire sprinkler and standpipe systems shall be protected against backflow by a double check-valve assembly or a reduced pressure principle backflow preventer.

Exceptions:

1. Where systems are installed as a portion of the water distribution system in accordance with the requirements of this code, ~~and~~ are not provided with a fire department connection, and the sprinkler heads are five feet or less from the water distribution pipes that supply them, isolation of the water supply system shall not be required. Sprinkler heads that are over five feet from the water distribution piping shall have a separate connection to the water distribution piping within five feet of the sprinkler head.
2. Isolation of the water distribution system is not required for deluge, preaction or dry pipe systems.

Reason: Sprinkler supply lines that are remote from the potable water supply have little or no flow and can allow water to become stagnant. Service of theses systems could allow contaminated water back into the potable water system. A connection to the sprinkler system within five feet of a remote head would allow minimal movement of water and eliminate the possibility of stagnant water.

Cost Impact: The code change proposal will increase the cost of construction. Minimal increases and costs will be experienced if piping is routed properly.

Analysis: It is not clear what is intended by the proposed last sentence of exception #1.

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P100–06/07
608.16.4, 608.16.4.1; IRC P2902.5.4, IRC P2902.5.4.1

Proponent: Robert E. Pittenger, Sr., Beach Services, Norfolk, Virginia

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Delete without substitution:

~~**608.16.4 Connections to automatic fire sprinkler systems and standpipe systems.** The potable water supply to automatic fire sprinkler and standpipe systems shall be protected against backflow by a double check-valve assembly or a reduced pressure principle backflow preventer.~~

~~**Exceptions:**~~

1. ~~Where systems are installed as a portion of the water distribution system in accordance with the requirements of this code and are not provided with a fire department connection, isolation of the water supply system shall not be required.~~
2. ~~Isolation of the water distribution system is not required for deluge, preaction or dry pipe systems.~~

~~**608.16.4.1 Additives or nonpotable source.** Where systems under continuous pressure contain chemical additives or antifreeze, or where systems are connected to a nonpotable secondary water supply, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer. Where chemical additives or antifreeze are added to only a portion of an automatic fire sprinkler or standpipe system, the reduced pressure principle backflow preventer shall be permitted to be located so as to isolate that portion of the system. Where systems are not under continuous pressure, the potable water supply shall be protected against backflow by an air gap or a pipe applied atmospheric vacuum breaker conforming to ASSE 1001 or CSA B64.1.1.~~

PART II – IRC PLUMBING

Delete without substitution:

~~**P2902.5.4 Connections to automatic fire sprinkler systems.** The potable water supply to automatic fire sprinkler systems shall be protected against backflow by a double check-valve assembly or a reduced pressure principle back-flow preventer.~~

~~**Exception:** Where systems are installed as a portion of the water distribution system in accordance with the requirements of this code and are not provided with a fire department connection, isolation of the water supply system shall not be required.~~

~~**P2902.5.4.1 Additives or nonpotable source.** Where systems contain chemical additives or antifreeze, or where systems are connected to a nonpotable secondary water supply, the potable water supply shall be protected against backflow by a reduced pressure principle back-flow preventer. Where chemical additives or antifreeze is added to only a portion of an automatic fire sprinkler or standpipe system, the reduced pressure principle back-flow preventer shall be permitted to be located so as to isolate that portion of the system.~~

Reason:

1. Design or a fire sprinkler is the responsibility of a Registered Design Professional, installation and maintenance is the responsibility of a licensed and certified Fire Sprinkler Contractor.
2. Fire sprinkler systems are covered under NFPA 13 Installation of Sprinkler Systems and NFPA 25 Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems. The installation of fire sprinkler systems by other than qualified installers, under the ICC CODE, would leave the installer liable. The inspection of fire sprinkler systems, under the ICC CODE, would leave the inspector/municapality liable
3. Code article does not meet the requirements of 608.1 (attached). Once the system is activated it is cross-connected with a toxic atmosphere and the water would have to be secured at the point of delivery, because the sprinkler system is normally located above other outlets within the structure, should another outlet be open or damaged due to the causality a back-siphon condition could exist within the plumbing system, thus contaminating the potable water system with toxic vapors that may condense within the plumbing system, once cooled.

SECTION 608
PROTECTION OF POTABLE WATER SUPPLY

608.1 General. A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from nonpotable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system. Backflow preventer applications shall conform to Table 608.1, except as specifically stated in Sections 608.2 through 608.16.9.

4. As with IPC SECTION 608, IRC SECTION P2902 is the same as stated in item 2.

P2902.1 General. A potable water supply system shall be designed and installed in such a manner as to prevent contamination from nonpotable liquids, solids or gases being introduced into the potable water supply. Connections shall not be made to a potable water supply in a manner that could contaminate the water supply or provide a cross-connection between the supply and source of contamination unless an approved backflow-prevention device is provided. Cross-connections between an individual water supply and a potable public water supply shall be prohibited.

The proponent shall justify changing the current code provisions, stating why the proposal is superior to the current provisions of the Code. Proposals that add or delete requirements shall be supported by a logical explanation which clearly shows why the current Code provisions are inadequate or overly restrictive, specifies the shortcomings of the current Code provisions and explains how such proposals will improve the Code.

1. Fire sprinkler systems are a life safety system and as such require licensed, certified and insured individuals / contractors to install and service the system.
2. Just the presents of sprinkler heads gives the occupant a sense of security, knowing that associated alarms and notification systems are in place.
3. Fire systems are, as implied is the referenced code articles, wet with no outlet and as such will become stagnant, anaerobic and are directly connected to the potable water system, without protection of any kind.

Substantiation:

1. NFPA 13 Installation of Sprinkler Systems.
2. NFPA 25 Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems.
3. IPC 2003; SECTION 608 PROTECTION OF POTABLE WATER SUPPLY
4. IRC 2003; SECTION P2902 PROTECTION OF POTABLE WATER SUPPLY

Bibliography:

1. NFPA 13 Installation of Sprinkler Systems.
2. NFPA 25 Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems.
3. IPC 2003; SECTION 608 PROTECTION OF POTABLE WATER SUPPLY
4. IRC 2003; SECTION P2902 PROTECTION OF POTABLE WATER SUPPLY

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P101–06/07
608.16.4.1

Proponent: Paul Bladdick and Barry Pines, Code Study Development Group of Southeast Michigan

Revise as follows:

608.16.4.1 Additives or nonpotable source. Where systems under continuous pressure contain chemical additives or antifreeze, or where systems are connected to a nonpotable secondary water supply, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer. Where chemical additives or antifreeze are added to only a portion of an automatic fire sprinkler or standpipe system, the reduced pressure principle backflow preventer shall be permitted to be located so as to isolate that portion of the system. Where systems are not under continuous pressure, the potable water supply shall be protected against backflow by an air gap or a pipe applied atmospheric vacuum breaker conforming to ASSE 1001 ~~or CSA B64.1.1~~.

Reason: The CSA B64 Standards were included in the IPC under the premise that they are same as the ASSE Standards. Upon in depth analysis, they are significantly different from the ASSE Standards. Some of the differences include different names of the devices and different abbreviations, different performance requirements, different material requirements, and different test requirements. The CSA standards are not promulgated under the ANSI process and procedures. The CSA B64 standards use metric measurements vs. English measurements. The CSA standards do not specify the order the tests should be conducted.

ASSE 1001-2002 has a test for cold water deterioration for the AVB; CSA B64.1.1-01 does not. ASSE 1001-2002 has a minimum unobstructed passageway requirement; CSA B64.1.1-01 does not. ASSE 1001-2002 has an air flow test; CSA B64.1.1-01 does not. ASSE 1001-2002 evaluates a test to verify the thread depth of the AVB; B64.1.1-01 does not. ASSE 1001-2002 defines the maximum allowable continuous pressure as 12 hours; the CSA B64.1.1-01 does not have a maximum time period.

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

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P102–06/07
701.9

Proponent: James Anjam, Arlington County, Virginia, representing Virginia Plumbing and Mechanical Inspectors Association (VPMIA) and the Virginia Building Code Officials Association (VBCOA)

Delete without substitution:

~~**701.9 Drainage piping in food service areas.** Exposed soil or waste piping shall not be installed above any working, storage or eating surfaces in food service establishments.~~

Reason: This is a health department issue that needs to be left up to the health departments. What is a working area? Many restaurants choose open ceiling design. Piping located in that type environment should not be a plumbing code violation. Piping systems are not installed with the intent they are going to leak or fail; otherwise the code would require a secondary source of containment for all piping systems. What is the difference if a piece of ceiling tile is installed under to pipe? Does that make it safer? All that means is that in the unfortunate event of a pipe failure the tile gets wet first before the area below.

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

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P103–06/07
701.10 (New); IRC P3002.5 (New)

Proponent: Sidney Cavanaugh, Cavanaugh Consulting, representing Charlotte Pipe & Foundry

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Add new text as follows:

701.10 International Standards. Pipe and fittings manufactured to CSA and other international standards shall not be intermingled and used with pipe and fittings manufactured to ASTM and ANSI standards referenced in Tables 702.1, 702.2, and 702.3.

PART II – IRC PLUMBING

Add new text as follows:

P3002.5 International Standards. Pipe and fittings manufactured to CSA and other international standards shall not be intermingled and used with pipe and fittings manufactured to ASTM and ANSI standards referenced in Tables P3002.1(1), P3002.1(2), and P3002.2.

Reason: This code change will address possible confusion and miss-application in the field when standards contain conflicts regarding dimensions, color and color of solvent cements. A careful side by side comparison of standards reveals these problems and this code change reinforces the intent of the code by recognizing that pipe and fittings manufactured to conflicting standards should not be co-mingled but installed as part of a system to assure long term performance and reliability.

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P104–06/07
701.11 (New); IRC P3002.6 (New)

Proponent: Sidney Cavanaugh, Cavanaugh Consulting, representing Charlotte Pipe & Foundry

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Add new text as follows:

701.11 Minimum performance. Pipe and fittings used in sanitary drainage systems shall meet the minimum requirements for dimensions and tolerances, wall thickness, pipe stiffness, pipe flattening, and impact resistance of the appropriate ASTM standards referenced in Tables 702.1, 702.2, and 702.3.

PART II – IRC PLUMBING

Add new text as follows:

P3002.6 Minimum performance. Pipe and fittings used in sanitary drainage systems shall meet the minimum requirements for dimensions and tolerances, wall thickness, pipe stiffness, pipe flattening, and impact resistance of the appropriate ASTM standards referenced in Tables P3002.1(1), P3002.1(2) and P3002.2.

Reason: This code change will address the problem of standards containing conflicts which affects long term performance and reliability. These include requirements regarding dimensions and tolerances, wall thickness, pipe stiffness, pipe flattening, and impact resistance which may be lower, or different in the case of dimensions and tolerances, than current referenced ASTM and ANSI referenced standards. The move to add many CSA and other international standards into the code has the potential to create confusion and miss-application in the field as well as failures. A careful side by side comparison of standards will reveal these problems and assure that critical minimums are met before they are added to the code.

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P105–06/07
702.4, Table 702.4

Proponent: Guy Tomberlin, Fairfax County, Virginia, representing Virginia Plumbing and Mechanical Inspectors Association (VPMIA) and the Virginia Building Code Officials Association (VBCOA)

Revise as follows:

702.4 Fittings. Pipe fittings shall be approved for installation with the piping material installed and shall conform to ~~the respective pipe standards or~~ one of the applicable standards listed in Table 702.4.

TABLE 702.4
PIPE FITTINGS

MATERIAL	STANDARD
Acrylonitrile butadiene styrene (ABS) plastic ~~pipe~~	ASTM D 2661; ASTM D 3311; ASTM F 628, CSA B181.1
Asbestos Cement	ASTM C 428
Cast iron	ASME B 16.4; ASME B 16.12; ASTM A 74; ASTM A 888; CISPI 301
Coextruded composite ABS DWV schedule 40 IPS ~~pipe~~ (solid or cellular core)	ASTM D 2661; ASTM D 3311; ~~ASTM F 628~~
Coextruded composite PVC DWV schedule 40 IPS-DR, PS140, PS200 (solid or cellular core)	ASTM D 2665; ASTM D 3311; ~~ASTM F 891~~
Coextruded composite ABS sewer and drain DR-PS in PS35, PS50, PS100, PS140, PS200	ASTM D 2751
Coextruded composite PVC sewer and drain DR-PS in PS35, PS50, PS100, PS140, PS200	ASTM D 3034
Copper or copper alloy	ASME B 16.15; ASME B 16.18; ASME B 16.22; ASME B 16.23; ASME B 16.26; ASME B 16.29
Glass	ASTM C 1053
Gray iron and ductile iron	AWWA C 110
Malleable iron	ASME B 16.3
Polyolefin	ASTM F 1412; CSA B181.3
Polyvinyl chloride (PVC) plastic	ASTM D 2665; ASTM D 2949; ASTM D 2665; ASTM D 3034; ASTM D 3311; ~~ASTM F 1866~~
PVC fabricated fittings	ASTM F 1866
Stainless steel drainage systems, Types 304 and 316L	ASME A 112.3.1
Steel	ASME B 16.9; ASME B16.11; ASME B16.28
Vitrified Clay	ASTM C 700

Reason: This is a clean up action consistent with the activity on water system fittings. Fittings need to comply with the applicable fitting standard not pipe standards.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P106–06/07

705.18.4, 707.1, Chapter 13; IRC P2904.17.2, P3003.2, Chapter 43

Proponent: Michael W. Cudahy, Plastic Pipe and Fittings Association (PPFA)

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

1. Revise as follows:

705.18.4 Plastic pipe or tubing to other piping material. Joints between different types 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.

Exception: Adapter fittings shall not be required for transitions between ABS and PVC drain, waste and vent pipe where solvent cement joints are made with solvent cement conforming to ASTM D3138

707.1 Prohibited joints. The following types of joints and connections shall be prohibited:

1. Cement or concrete joints.
2. Mastic or hot-pour bituminous joints.
3. Joints made with fittings not approved for the specific installation.
4. Joints between different diameter pipes made with elastomeric rolling O-rings.
5. Solvent-cement joints between different types of plastic pipe.
6. Saddle-type fittings.

Exception: Solvent cement transitions between ABS and PVC drain, waste and vent pipe made with solvent cement conforming to ASTM D3138.

2. Add standard to Chapter 13 as follows:

ASTM
D 3138–04 Standard Specification for Solvent Cements for Transition Joints Between Acrylonitrile-Butadiene-Styrene (ABS) and Poly(Vinyl Chloride) (PVC) Non-Pressure Piping Components

PART II – IRC PLUMBING

1. Revise as follows:

P2904.17.2 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.

Exception: Adapter fittings shall not be required for transitions between ABS and PVC drain, waste and vent pipe where solvent cement joints are made with solvent cement conforming to ASTM D3138

P3003.2 Prohibited joints. Running threads and bands shall not be used in the drainage system. Drainage and vent piping shall not be drilled, tapped, burned or welded.

The following types of joints and connections shall be prohibited:
1. Cement or concrete.
2. Mastic or hot-pour bituminous joints.
3. Joints made with fittings not approved for the specific installation.
4. Joints between different diameter pipes made with elastomeric rolling O-rings.
5. Solvent-cement joints between different types of plastic pipe.
6. Saddle-type fittings.

Exception: Solvent cement transitions between ABS and PVC drain, waste and vent pipe made with solvent cement conforming to ASTM D3138.

2. Add standard to Chapter 43 as follows:

ASTM
D 3138–04 Standard Specification for Solvent Cements for Transition Joints Between Acrylonitrile-Butadiene-Styrene (ABS) and Poly(Vinyl Chloride) (PVC) Non-Pressure Piping Components

Reason: To allow the use of transition cement in the IPC for joining DWV PVC to DWV ABS systems where such systems intersect.
The practice of making a single transition solvent welded joint when changing from an ABS to a PVC DWV system is acceptable in another code and has been used for many years with success. ASTM D 3138 for transition solvent cement, originally published in 1972, explains the intent of the product and applications it is to be used in – for making one "transition" solvent cement type joint between ABS and PVC DWV systems.

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

Analysis: Results of the review of the proposed standard(s) will be posted on the ICC website by August 20, 2006.

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P107–06/07
708.3.3

Proponent: Lawrence Brown, CBO, National Association of Home Builders (NAHB)

Revise as follows:

708.3.3 Changes of direction. Cleanouts shall be installed at each fitting with a change of direction greater than 45 degrees (0.79 rad) in the building sewer, building drain and horizontal waste or soil lines. Where more than one change of direction occurs in a run of piping, only one cleanout shall be required for each 40 feet (12 192 mm) of developed length of the drainage piping.

Reason: The modification shown above is from Proposal P90-04/05 Part #2 that was Approved as Modified by the IRC-PM Code Committee. The modification shown above is the text of the 2006 IRC section P3005.2.4. This modification takes into consideration the design and installation of a curvilinear gravity sewer. Though the curvilinear sewer may have a gradual change in direction of more that 45 degrees, there is no fitting that would impede the cleanout procedure. All other aspects of 708.3, such as the distance between cleanouts, remain unchanged.

Cost Impact: The code change proposal will not increase the cost of construction. May provide a lower cost installation.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P108–06/07
Table 709.1, 709.4.1 (New)

Proponent: Jerry N. Farmer, Sr., C.P.D., Gulf States Plumbing & Mechanical, Inc.

Add new text as follows:

709.4.1 Clearwater waste receptors. Where indirect waste receptors such as floor drains, floor sinks and hub drains are installed in mercantile occupancies and receive only clear water waste from display cases, refrigerated display cases, ice bins, coolers, freezers and similar equipment, such receptors shall have a drainage fixture unit value of 0.5.

Revise table as follows:

TABLE 709.1
DRAINAGE FIXTURE UNITS FOR FIXTURES AND GROUPS

FIXTURE TYPE	DRAINAGE FIXTURE UNIT VALUE AS LOAD FACTORS	MINIMUM SIZE OF TRAP (inches)
Floor drains[h]	2[h]	2
Floor sinks	Note h	2

(Portions of table not shown do not change)

For SI: 1 inch = 25.4 mm, 1 gallon = 3.785 L (gpf = gallon per flushing cycle).
a. and b. (No change to current text)
c. See Sections 709.2 through ~~709.4~~ 709.4.1 for methods of computing unit value of fixtures not listed in this table or for rating of devices with intermittent flows.
d. through g. (No change to current text)
h. See Sections 709.4 and 709.4.1.

Reason: Display cases and refrigerated cases do not typically discharge any more waste than a drinking fountain. Most of the time, display cases and refrigerated cases in grocery stores and similar establishments are drained to combination waste and vent systems into a 3" P-trap that has a 5 DFU value from Table 709.2. In this circumstance, we need to use the proposed drainage fixture unit, not the existing 3" P-trap DFU to keep from oversizing the system. Many grocery stores and similar establishments today have as many as 70 to 200 refrigerated cases, display cases and coils. In these situations, by today's code, the fixture unit value of all the P-traps on a combination waste and vent system could be as much as 115 DFU to 325 DFU.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P109–06/07
Table 709.1

Proponent: Julius Ballanco, P.E., JB Engineering and Code Consulting, P.C.

Revise table as follows:

TABLE 709.1
DRAINAGE FIXTURE UNITS FOR FIXTURES AND GROUPS

FIXTURE TYPE	DRAINAGE FIXTURE UNIT VALUE AS LOAD FACTORS	MINIMUM SIZE OF TRAP (inches)
Shower (based on the total flow rate through showerheads and bodysprays)	2	
Flow rate:		
5.7 gpm or less		1-1/2
Greater than 5.7 gpm to 12.3 gpm		2
Greater than 12.3 gpm to 25.8 gpm		3
Greater than 25.8 gpm to 55.6 gpm		4

(Portions of table not shown do not change)

Reason: Previously, I submitted changes to lower the trap size for a shower based on the lowering of the flow rate to 2.5 gpm. Since the ICC membership has interpreted the code as allowing any number of shower heads for a single shower, the code requirements for drainage pipe sizing and water pipe sizing are incorrect. The code must be modified to address the additional load that will be placed on the drain and the additional peak demand requirements for water supply. Since a bathtub has a large reservoir, I have not submitted any change to the bathtub requirements in the code.

For establishing the minimum trap size, I calculated the maximum flow rate for the drain using the least allowable pitch for a given pipe size. In calculating the flow rates and velocities, I used a friction factor of 0.010. This is a very smooth pipe that is close to the plastic pipe allowed by code. Original tables used a friction factor of 0.015, which is much rougher than cast iron that was produced 80 years ago. Today's cast iron is much smoother on the interior wall of the pipe.

The velocities and flow rates are shown in the following table:

Pipe Diameter	Pipe Pitch	Velocity (ft/sec)	Flow Rate (gpm)
1-1/2	1/4" per 1'-0"	2.09	5.75
2	1/4" per 1'-0"	2.53	12.39
3	1/8" per 1'-0"	2.34	25.83
4	1/8" per 1'-0"	2.84	55.61

Based on the flow rates of this table, one can establish the minimum trap size and drainage pipe size for a shower with a specified flow rate.

This modification was added to the International Residential Code. Because of a glitch at the Final Code Hearing, the similar change to the Plumbing Code was not properly addressed.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P110–06/07
715.1, IRC P3008.1

Proponent: Paul Hayward, City of Farmington, Utah

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

715.1 Sewage backflow. Where the flood level rims of plumbing fixtures are below the elevation of the manhole cover of the next upstream manhole in the public sewer, such fixtures shall be protected by a backwater valve installed in the building drain, branch of the building drain or horizontal branch serving such fixtures. ~~Plumbing fixtures having flood level rims above the elevation of the manhole cover of the next upstream manhole in the public sewer shall not discharge through a backwater valve.~~

PART II – IRC PLUMBING

Revise as follows:

P3008.1 General. Fixtures that have flood level rims located below the elevation of the next upstream manhole cover of the public sewer serving such fixtures shall be protected from backflow of sewage by installing an approved backwater valve. ~~Fixtures having flood level rims above the elevation of the next upstream manhole shall not discharge through the backwater valve.~~ Backwater valves shall be provided with access.

Reason: To allow the installation of backwater valves such that is serves an entire system, rather than requiring multiple separate systems.

~~Requiring separate systems is not cost effective and serves no useful purpose. Multiple systems cost money and a single system will be protected by the backwater valve. This will save money for owners during construction.~~

There is no technical change to the performance of the drainage system, so no substantiation is provided.

Bibliography: No prior action has been found in the last two code editions regarding this matter.

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

PART I – IPC

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

PART II – IRC PLUMBING

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P111–06/07
715, Appendix H (New); IRC P3008, IRC Appendix S (New)

Proponent: Paul Hayward, City of Farmington, Utah

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Delete without substitution and place into an Appendix Chapter H:

~~**SECTION 715**~~
~~**BACKWATER VALVES**~~

~~**715.1 Sewage backflow.** Where the flood level rims of plumbing fixtures are below the elevation of the manhole cover of the next upstream manhole in the public sewer, such fixtures shall be protected by a backwater valve installed in the building drain, branch of the building drain or horizontal branch serving such fixtures. Plumbing fixtures having flood level rims above the elevation of the manhole cover of the next upstream manhole in the public sewer shall not discharge through a backwater valve.~~

~~**715.2 Material.** All bearing parts of backwater valves shall be of corrosion-resistant material. Backwater valves shall comply with ASME A112.14.1, CSA B181.1 or CSA B181.2.~~

~~**715.3 Seal.** Backwater valves shall be so constructed as to provide a mechanical seal against backflow.~~

~~**715.4 Diameter.** Backwater valves, when fully opened, shall have a capacity not less than that of the pipes in which they are installed.~~

~~**715.5 Location.** Backwater valves shall be installed so that access is provided to the working parts for service and repair.~~

APPENDIX H
BACKWATER VALVES

SECTION H715
BACKWATER VALVES

H715.1 Sewage backflow. Where the flood level rims of plumbing fixtures are below the elevation of the manhole cover of the next upstream manhole in the public sewer, such fixtures shall be protected by a backwater valve installed in the building drain, branch of the building drain or horizontal branch serving such fixtures. Plumbing fixtures having flood level rims above the elevation of the manhole cover of the next upstream manhole in the public sewer shall not discharge through a backwater valve.

H715.2 Material. All bearing parts of backwater valves shall be of corrosion-resistant material. Backwater valves shall comply with ASME A112.14.1, CSA B181.1 or CSA B181.2.

H715.3 Seal. Backwater valves shall be so constructed as to provide a mechanical seal against backflow.

H715.4 Diameter. Backwater valves, when fully opened, shall have a capacity not less than that of the pipes in which they are installed.

H715.5 Location. Backwater valves shall be installed so that access is provided to the working parts for service and repair.

PART II – IRC PLUMBING

Delete without substitution and place into an Appendix Chapter S:

~~**SECTION P3008**~~
~~**BACKWATER VALVES**~~

~~**P3008.1 General.** Fixtures that have flood level rims located below the elevation of the next upstream manhole cover of the public sewer serving such fixtures shall be protected from backflow of sewage by installing an approved~~

~~backwater valve. Fixtures having flood level rims above the elevation of the next upstream manhole shall not discharge through the backwater valve. Backwater valves shall be provided with access.~~

~~**P3008.2 Construction.** Backwater valves shall have noncorrosive bearings, seats and self-aligning discs, and shall be constructed to ensure a positive mechanical seal. Valve access covers shall be water tight.~~

APPENDIX S
BACKWATER VALVES

SECTION AS3008
BACKWATER VALVES

AS3008.1 General. Fixtures that have flood level rims located below the elevation of the next upstream manhole cover of the public sewer serving such fixtures shall be protected from backflow of sewage by installing an approved backwater valve. Fixtures having flood level rims above the elevation of the next upstream manhole shall not discharge through the backwater valve. Backwater valves shall be provided with access.

AS3008.2 Construction. Backwater valves shall have noncorrosive bearings, seats and self-aligning discs, and shall be constructed to ensure a positive mechanical seal. Valve access covers shall be water tight.

Reason: To make the installation of backwater valves optional for a local jurisdiction.

~~Currently some Water Reclamation Districts (sewer) are requiring the installation of backwater valves. Some cities are including the practice and others are resisting it. The decision is being made in the political arena, rather than based upon merit. Placing the requirement in the appendix will allow those jurisdictions who do not wish to enforce it the opportunity to follow their desires. Those who want to enforce it may then simply adopt it as an appendix chapter.~~

There is no technical change to the code requirements in the proposal for those wishing to require the valves, so no substantiation is provided.

Bibliography: No prior action has been found in the last two code editions regarding this matter.

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P112–06/07
901.3

Proponent: Jack Beuschel, representing Studor, Inc.

Revise as follows:

901.3 Chemical waste vent system. The vent system for a chemical waste system shall be independent of the sanitary vent system and shall terminate separately through the roof to the open air or to an air admittance valve in accordance with the exception to Section 917.8.

Reason: The purpose of this code change is to add new provisions to the code to permit air admittance valves (AAVs) to serve as the vent for a chemical waste system as an option to open pipe vents.

Sinks in laboratories into which acids and chemicals are dumped are usually located in islands in the middle of rooms. To vent these sinks with open pipe vents requires extensive labor and material. The pipe and fittings made from materials that are acid and chemical resistant are costly compared to ABS or PVC used in sanitary drainage systems. The installation of AAVs will significantly reduce the labor and material costs in chemical waste systems compared with open pipe vents.

The performance requirement for air admittance valves (AAVs) that comply with ANSI/ASSE 1051 for single fixture and branch venting are the same for both normal sanitary DWV systems and nonneutralized special waste systems. Although they are separate systems, the dynamics, with regard to trap seal protection for both systems, is the same. The only difference in nonneutralized special waste systems is that the DWV piping and components must be manufactured from material that is acid and chemical resistant in accordance with Section 702.5 of the IPC. Therefore, AAVs that are manufactured from materials that meet recognized industry standards for chemical and acid resistant material in compliance with Section 702.5 must be permitted to serve as a vent for nonneutralized special waste systems.

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

Analysis: This proposal is dependent upon the outcome of P118-06/07.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P113–06/07
903.2

Proponent: James Anjam, Arlington County, Virginia, representing Virginia Plumbing and Mechanical Inspectors Association (VPMIA) and the Virginia Building Code Officials Association (VBCOA)

Revise as follows:

903.2 Vent stack required. A vent stack shall be required for every drainage stack that has five branch intervals or more.

Exception: Drainage stacks installed in accordance with Section 910.

Reason: This is just to clarify that waste stack vented systems are uniquely designed and oversized to permit the system to properly function with out the installation of a vent stack.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P114–06/07
903.3

Proponent: Joel E. Shelton, R.P.S., R.P.E.S., J.E.S.AFEHEALTH, LLC

Revise as follows:

903.3 Vent termination. ~~Every~~ Vent stacks or stack vents shall terminate outdoors to the open air or to a stack-type air admittance valve in accordance with Section 917.

Reason: The purpose of this proposal is to correct a perceivable conflict between Sections 903.3, 903.1 and 917.7. Prior to the 2006 edition of the IPC, the intent of Section 903.3 was to provide that all vent stacks and stack vents terminate outdoors. In the 04/05 cycle, stack-type air admittance valves were approved for reference within the code and Section 903.3 was changed, along with the appropriate sections of 917, to include the reference to the stack-type devices. With the inclusion of the stack-type devices, it was not the intent to eliminate all roof penetrations of vents. A vent system utilizing branch- and stack-type AAV's is still required to have at least one vent that extends outside the building envelope, as evident by Section 903.1 and 917.7.

The pronoun every, by logical inference implies all vent stacks and stack vents must terminate by an "either or option" (i.e., to the open air, or to a stack-type AAV). This leaves out the mandated exception for one vent, as required by Section 903.1 and 917.7 without option, to terminate outside the building.

This change is a simple clean-up of any ambiguity that might be perceived from three code sections, all with the same intent.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P115–06/07
909.1

Proponent: James Anjam, Arlington County, Virginia, representing Virginia Plumbing and Mechanical Inspectors Association (VPMIA) and the Virginia Building Code Officials Association (VBCOA)

Revise as follows:

909.1 Horizontal wet vent permitted. Any combination of fixtures within two bathroom groups located on the same floor level is permitted to be vented by a horizontal wet vent. The wet vent shall be considered the vent for the fixtures and shall extend from the connection of the dry vent along the direction of the flow in the drain pipe to the most downstream fixture drain connection to the horizontal branch drain. Each wet-vented fixture drain shall connect

independently to the horizontal wet vent. Only the fixtures within the bathroom groups shall connect to the wet-vented horizontal branch drain. Any additional fixtures shall discharge downstream of the horizontal wet vent.

Reason: The principle of the wet vent is that all of the wet vented fixtures connect to the wet vent individually. It is commonly misinterpreted that two or more fixture drains could connect together before connecting to wet vent. Similar language exists in vertical wet vent section.

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

Analysis: See parallel proposal for Section P3108.1 of the IRC.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P116–06/07
909.1; IRC P3108.1

Proponent: Lawrence Suggars, South Salt Lake City, representing Utah Chapter of ICC

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

909.1 Horizontal wet vent permitted. Any combination of fixtures within two bathroom groups located on the same floor level is permitted to be vented by a horizontal wet vent. The wet vent shall be considered the vent for the fixtures and shall extend from the connection of the dry vent along the direction of the flow in the drain pipe to the most downstream fixture drain connection to the horizontal ~~branch~~ drain. The wet-vented fixture drains shall independently connect to the horizontal wet vent. Only the fixtures within the bathroom groups shall connect to the wet-vented horizontal ~~branch~~ drain. Any additional fixtures shall discharge downstream of the horizontal wet vent.

PART II – IRC PLUMBING

Revise as follows:

P3108.1 Horizontal wet vent permitted. Any combination of fixtures within two bathroom groups located on the same floor level are permitted to be vented by a horizontal wet vent. The wet vent shall be considered the vent for the fixtures and shall extend from the connection of the dry vent along the direction of the flow in the drain pipe to the most downstream fixture drain connection. The wet-vented fixture drains shall independently connect to the horizontal wet vent. Each fixture drain shall connect horizontally to the horizontal branch being wet vented or shall have a dry vent. Only the fixtures within the bathroom groups shall connect to the wet-vented horizontal ~~branch~~ drain. Any additional fixtures shall discharge downstream of the horizontal wet vent.

Reason: The current code language does not specifically state the each fixture must connect to the wet vent individually. This is the basic intent of the IPC 909 and explained only in the "commentary". 2nd the IRC and the IPC should be consistent. 3rd "branch" should not be used in this application. The language is too restrictive. If a building only has a single bathroom group technically this building may not have a branch, only a building drain. By eliminating the word branch both building drains and branches are included.

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

PART I – IPC

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

PART II – IRC PLUMBING

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P117–06/07
914 (New)

Proponent: Julius Ballanco, P.E., JB Engineering and Code Consulting, P.C.

Add new text as follows:

SECTION 914
SINGLE STACK VENT SYSTEM

914.1 Where permitted. A drainage stack shall be permitted to serve as a single stack vent system where sized and installed in accordance with Sections 914.2 through 914.9. The drainage stack and branch piping shall be considered to be the vents for the drainage system. The drainage stack shall have a stack vent.

914.2 Stack size. Drainage stacks shall be sized in accordance with Table 914.2. A maximum of two water closets shall be permitted to discharge into a 3-inch stack. Stacks shall be uniformly sized based on the total connected drainage fixture unit load. The stack vent shall be the same size as the drainage stack.

TABLE 914.2
SINGLE STACK SIZE

Stack Size (inches)	Maximum Connected Drainage Fixture Units		
	Stacks Less than 75 Feet in Height	Stacks 75 Feet to Less than 160 Feet in Height	Stacks 160 Feet and Greater in Height
3	24	NP	NP
4	225	24	NP
5	480	225	24
6	1,015	480	225
8	2,320	1,015	480
10	4,500	2,320	1,015
12	8,100	4,500	2,320
15	13,600	8,100	4,500

914.3 Branch size. Horizontal branches connecting to a single stack vent system shall be sized in accordance with Table 710.1(2). Not more than one water closet within 18 inches (457.2 mm) developed length of the stack horizontally shall discharge into a 3 inch (76.2 mm) horizontal branch. A water closet within 18 inches (457.2 mm) developed length of a stack horizontally and not more than one fixture with a maximum fixture drain size of 1 1/2 inch (38.1 mm) shall be permitted to discharge to a 3 inch (76.2 mm) horizontal branch where connection to the stack is made with a sanitary tee.

914.4 Length of horizontal branches. The length of horizontal branches shall conform to the requirements of Sections 914.4.1 through 914.4.3.

914.4.1 Water closet connection. Water closets shall be a maximum of 4 feet (1219 mm) in developed length horizontally from the stack.

> **Exception:** Water closets shall be permitted to be a maximum of 8 feet (2438 mm) in developed length horizontally from the stack where connection is made with a sanitary tee.

914.4.2 Fixture connections. Fixtures other than water closets shall be located a maximum of 12 feet (3657 mm) in developed length horizontally from the stack.

914.4.3 Vertical piping in branch. The length of vertical piping in a fixture drain connecting to a horizontal branch shall not be considered in computing the fixture's horizontal distance from the stack.

914.5 Minimum vertical piping size from fixture. The vertical portion of piping in a fixture drain to a horizontal branch connection shall be a minimum of 2 inches (50.8 mm). The minimum size of the vertical portion of piping for a urinal or standpipe shall be 3 inches (76.2 mm).

914.6 Additional fixture connections. Additional fixtures not vented by the single stack venting system shall be permitted to discharge into the single stack vent. The fixtures shall be vented by individual vents, common vents, wet vents, circuit vents, or a combination waste and vent pipe. The dry vent extensions for the venting of these fixtures shall terminate to a branch vent, vent stack, stack vent, air admittance valve, or outdoors to the open air.

914.7 Stack offsets. Where fixture drains are not connected below a horizontal offset in a stack, a horizontal offset shall not be required to be vented. Where horizontal branches or fixture drains connected below a horizontal offset in a stack, the offset shall be vented in accordance with Section 915. Fixtures shall not connect to a stack within 2 feet (609.6 mm) above or below a horizontal offset.

914.8 Prohibited lower connections. Stacks greater than 2 branch intervals in height shall not receive the discharge of horizontal branches on the lower two floors. Where a separate stack is provided for the lower two floors, the stack shall connect to the building drain at a distance of not less than 10 pipe diameters downstream from the base of the connection of any single stack vented system.

914.9 Sizing building drains and sewers. The building drain and building sewer receiving the discharge of a single stack vent system shall be sized in accordance with Table 710.1(1).

Reason: Both the *Uniform Plumbing Code* and the *National Standard Plumbing Code* have adopted the single stack venting system. Only the I*nternational Plumbing Code* is behind in regulating single stack venting systems.

This proposal will add a single stack vent system for the entire drainage system, including water closets and urinals. This proposed change is based on the Philadelphia Plumbing Code, which has used single stack vent systems successfully for over 100 years. The stacks are oversized to provide for the flow of liquid waste, solid waste, and air. The lengths of trap arms are limited and the vertical drops from fixture traps are oversized to prevent the trap from self-siphoning. Fixture drains that do not meet the requirements for a single stack venting system must be conventionally vented in accordance with the other Sections of Chapter 9.

Note that the trap sizes in the one pipe vent system are comparable to those in Chapter 7 and are not oversized. What is oversized is any vertical drop that forms an “S” trap.

The following is a comparison of the DFU stack loading allowed by the various model plumbing codes for conventionally vented drainage systems, compared to a single stack vent system less than 75 feet in height.

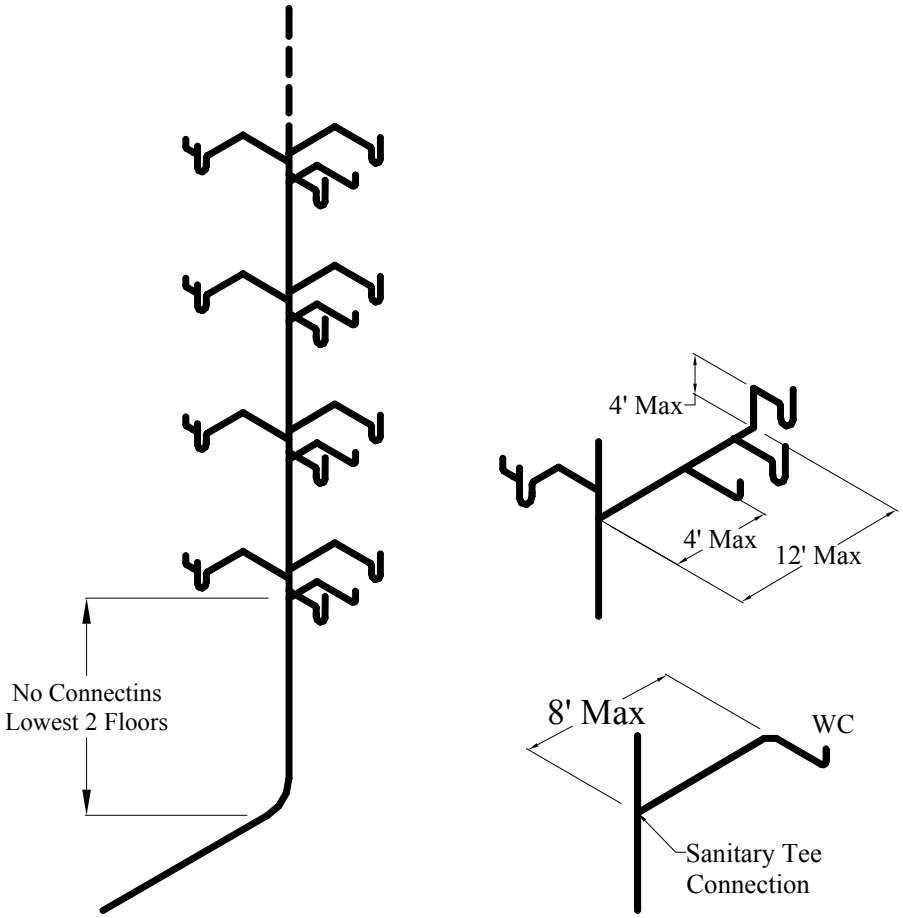
STACK SIZE	PROPOSED SINGLE STACK	PHILADELPHIA PLUMBING CODE	2006 IPC (a)	2006 NSPC (a)	2006 UPC (a)
3”	24 (b)	75	72	72	48
4”	225	225	500	500	256
5”	480	480	1100	1100	600
6”	1015	1015	1900	1900	1380
8”	2320	2320	3600	3600	3600
10”	4500	4500	5600	5600	5600
12”	8100	8100	8400	8400	8400
15”	13,600	13,600			

The Philadelphia Plumbing Code allows 75 DFU and six (6) water closets on a 3” stack, which is comparable to a conventionally vented drainage system. This proposal limits a 3” stack to 24 DFU and two (2) water closets, which is comparable to an average dwelling unit.

In the Table above, the allowable DFU loading on 3”, 4”, 5”, and 6” stacks in the proposed single stack vent system is 50% or less of that allowed in a conventionally vented system. The percentage of oversize diminishes in the 8”, 10” and 12” stacks. However, stacks that large will be taller than 75 feet or 160 feet and Section 911.2 will require that they be increased one or two pipe sizes, making the stack loading 50% or less for all stack sizes.

Although the pipe sizing is larger in a single stack vent system, it results in construction cost savings by reducing the amount of vent piping required.

A typical riser diagram with details would look, as follows:



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

Analysis: Does this system require a vent stack in accordance with Section 903.2? In proposed Section 914.8, is the "10 pipe diameters" referring to the diameter of the stack or the building drain? (e.g., see Section 903.4.) How does proposed Section 914.4.1 correlate with current Section 906.1, exception?

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P118–06/07
917.8

Proponent: Jack Beuschel, representing Studor, Inc.

Revise as follows:

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.

Exception: Air admittance valves shall be permitted in nonneutralized special waste systems provided that they conform to the material requirements in Section 702.5.

Reason: The purpose of this code change is to add new provisions to the code to permit air admittance valves (AAVs) to serve as the vent for a chemical waste system as an option to open pipe vents.

Sinks in laboratories into which acids and chemicals are dumped are usually located in islands in the middle of rooms. To vent these sinks with open pipe vents requires extensive labor and material. The pipe and fittings made from materials that are acid and chemical resistant are costly compared to ABS or PVC used in sanitary drainage systems. The installation of AAVs will significantly reduce the labor and material costs in chemical waste systems compared with open pipe vents.

The performance requirement for air admittance valves (AAVs) that comply with ANSI/ASSE 1051 for single fixture and branch venting are the same for both normal sanitary DWV systems and nonneutralized special waste systems. Although they are separate systems, the dynamics, with regard to trap seal protection, for both systems is the same. The only difference in nonneutralized special waste systems is that the DWV piping and components must be manufactured from material that is acid and chemical resistant in accordance with Section 702.5 of the IPC. Therefore, AAVs that are manufactured from materials that meet recognized industry standards for chemical and acid resistant material in compliance with Section 702.5 must be permitted to serve as a vent for nonneutralized special waste systems.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P119–06/07
1002.4

Proponent: David M. Wenzlaff, Henrico County, Virginia, representing Virginia Plumbing and Mechanical Inspectors Association (VPMIA) and the Virginia Building Code Officials Association (VBCOA)

Revise as follows:

1002.4 Trap seals. Each fixture trap shall have a liquid seal of not less than 2 inches (51 mm) and not more than 4 inches (102 mm), or deeper for special designs relating to accessible fixtures. Where a trap seal is subject to loss by evaporation, a trap seal primer valve or a deep seal trap shall be installed. A trap seal primer valve shall conform to ASSE 1018 or ASSE 1044.

Reason: Deep seal traps have been an acceptable protection for trap seal loss for many years. IRC consistency is needed, P3201.3 has exception for deep seal traps.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P120–06/07
1002.4; IRC P3201.2

Proponent: Guy Wayne Harrison, Josam Company

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

1002.4 Trap seals. Each fixture trap shall have a liquid seal of not less than 2 inches (51 mm) and not more than 4 inches (102 mm), or deeper for special designs relating to accessible fixtures. Where a trap seal is subject to loss by evaporation, a trap seal primer valve shall be installed. Trap seal primer valves shall connect to the trap at a point above the level of the trap seal. A trap seal primer valve shall conform to ASSE 1018 or ASSE 1044.

PART II – IRC PLUMBING

Revise as follows:

P3201.2 Trap seals and trap seal protection. Traps shall have a liquid seal not less than 2 inches (51 mm) and not more than 4 inches (102 mm). Traps for floor drains shall be fitted with a trap primer or shall be of the deep seal design. Trap seal primer valves shall connect to the trap at a point above the level of the trap seal.

Reason: The proposed code change will help clarify the Code.

By adding in the proposed language, to the current provision of the 2006 (IPC) Code, will provide awareness that installing a trap primer to a freeze plug or drainage plug fitting, on existing traps (lower front and bottom), is prohibited. By not clarifying the location of the trap primer connection, solids and bacteria could cause unnecessary problems, such as stopping up and contaminations, detrimental to the health and safety of the consumer.

2003 International Code Commentary (IPC). In Section 1002.4 the commentary states: A water seal of 2 inches (51 mm) is standard for most traps. Some larger pipes, 3 through 6 inches (76 mm through 152 mm), have a greater seal of up to 4 inches (102 mm) to construct a smooth pattern of flow for the given pipe size [See Figure 1002.1.(1), Exception 1]. A trap seal must be deep enough to resist the pressures that can develop in a properly vented drainage system, but *not so deep as to promote the retention of solids or the growth of bacteria.*

Bibliography: The substantiating proposal is the 2003 IPC Commentary, Section 1002.4.

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

PART I – IPC

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

PART II – IRC PLUMBING

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P121–06/07
1002.4, Chapter 13, IRC P3201.2, Chapter 43

Proponent: Julius Ballanco, P.E., JB Engineering and Code Consulting, P.C.

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

1. Revise as follows:

1002.4 Trap seals. Each fixture trap shall have a liquid seal of not less than 2 inches (51 mm) and not more than 4 inches (102 mm), or deeper for special designs relating to accessible fixtures. Where a trap seal is subject to loss by evaporation, a trap seal primer valve <u>or a trap seal protection device</u> shall be installed. A trap seal primer valve shall conform to ASSE 1018 or ASSE 1044. <u>Trap seal protection devices shall conform to ASSE 1072</u>.

2. Add standard to Chapter 13 as follows:

ASSE
<u>1072–06</u> <u>Performance Requirements for Barrier Type Floor Drain Trap Seal Protection Devices</u>

PART II – IRC PLUMBING

1. Revise as follows:

P3201.2 Trap seals and trap seal protection. Traps shall have a liquid seal not less than 2 inches (51 mm) and not more than 4 inches (102 mm). Traps for floor drains shall be fitted with a trap primer <u>or a trap seal protection device</u> or shall be of the deep seal design. <u>Trap seal protection devices shall conform to ASSE 1072</u>.

2. Add standard to Chapter 43 as follows:

ASSE
<u>1072–06</u> <u>Performance Requirements for Barrier Type Floor Drain Trap Seal Protection Devices</u>

Reason: I withdrew this code change during the last cycle since the standard was not completed prior to the hearings. Since the standard has been completed, I am resubmitting the change.

One of the newest devices is a floor drain trap seal protection device. ASSE has developed a new standard to regulate these protection devices. The trap seal protection device provides a barrier over the opening to the floor drain. This prevents evaporation of the trap seal. In addition, the barrier prevents the escape of sewer gas by closing off the opening. While this is not the primary function of the device, it is one of the added benefits that such a barrier device provides.

At the International SARS Symposium, all three methods of protecting a trap seal where discussed. It was recognized that these three levels of protection are necessary to prevent the passage of sewer gas that may be contaminated with a corona virus. The proposed new section will permit the design professional or contractor the option to use any one of the viable methods of protecting a floor drain trap seal from evaporation.

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

Analysis: Results of the review of the proposed standard(s) will be posted on the ICC website by August 20, 2006.

PART I – IPC

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

PART II – IRC PLUMBING

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P122–06/07
1003.3

Proponent: Rand Ackroyd, Rand Engineering, Inc.

Revise as follows:

1003.3 Grease interceptors. Hydro Mechanical Type I grease interceptors shall comply with the requirements of Sections 1003.3.1 through 1003.3.5.

Reason: Update and Clarify the Code.
Because of past confusion with different types of grease interceptors the new fuller descriptive name has been adopted by the industry and standards G101 and ASME A112 14.4.
The new description has become the industry standard. See attached excerpts from PDI G101 and ASME A112.14.4.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P123–06/07
1003.3.1

Proponent: Billy Smith and Max Weiss, Jay R. Smith Mfg., Co.

Revise as follows:

1003.3.1 Grease interceptors, ~~and~~ automatic grease removal devices and fat, oil and grease disposal systems required. A grease interceptor, ~~or~~ automatic grease removal device or fat, oil and grease disposal system shall be required to receive the drainage from fixtures and equipment with grease-laden waste located in food preparation areas, such as in restaurants, hotel kitchens, hospitals, school kitchens, bars, factory cafeterias and clubs. Fixtures and equipment shall include pot sinks, prerinse sinks; soup kettles or similar devices; wok stations; floor drains or sinks into which kettles are drained; automatic hood wash units and dishwashers without prerinse sinks. Grease interceptors, ~~and~~ automatic grease removal devices and fat, oil and grease disposal systems shall receive waste only from fixtures and equipment that allow fats, oils or grease to be discharged.

Reason: Add new requirements to the code.
The proposed text provides consistency with proposed new section.
This code change will bring Chapter 10 in line with the newest ASME national consensus standards relative to Grease Interceptor technologies.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P124–06/07
1003.3.2

Proponent: Sidney Cavanaugh, Cavanaugh Consulting, representing In-Sink-Erator

Delete without substitution:

~~**1003.3.2 Food waste grinders.** Where food waste grinders connect to grease interceptors, a solids interceptor shall separate the discharge before connecting to the grease interceptor. Solids interceptors and grease interceptors shall be sized and rated for the discharge of the food waste grinder. Emulsifiers, chemicals, enzymes and bacteria shall not discharge into the food waste grinder.~~

Reason: This section as now written is totally confusing and implies that all grease interceptors must have a solids interceptor if a garbage disposal is discharging into the interceptor. This is not only impractical (potential clogging) but there are no solids interceptors large enough to accommodate all installations. In addition, many jurisdictions do add chemicals and bacteria to help remediate potential sewer problems (such as grease and hydrogen sulfide).

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P125–06/07
1003.3.3 (New)

Proponent: Sidney Cavanaugh, Cavanaugh Consulting, representing In-Sink-Erator

Add new text as follows:

1003.3.3. Food waste disposals. Where commercial food waste disposals are prohibited from discharging into grease interceptors, they shall be permitted to discharge directly into the building's drainage system downstream of any interceptor on the system.

Reason: This section will clarify the intent of the code regarding use of commercial garbage disposals. In addition, many jurisdictions currently allow garbage disposals to discharge into properly sized gravity type grease interceptors (few allow discharging into smaller grease interceptors) while others do not allow any discharge from disposals into all types of grease interceptors. This code change gives an alternative to jurisdictions and spells out the intent of the code which does not prohibit the use of commercial garbage disposals in commercial kitchens.

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

Analysis: The proposed text alludes to a prohibition that is not in the code and suggests that the code is trying to coordinate with local ordinances. Disposal units are already permitted to connect directly to the sanitary drainage system. It is not clear why the disposal unit must connect downstream of all interceptors.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P126–06/07
1003.3.3

Proponent: Billy Smith and Max Weiss, Jay R. Smith Manufacturing, Co.

Revise as follows:

1003.3.3 Grease interceptors, ~~and~~ automatic grease removal devices and disposal systems not required. A grease interceptor, ~~or an~~ automatic grease removal device or a fat, oil and grease disposal system shall not be required for individual dwelling units or any private living quarters.

Reason: Add new requirements to the code.
The proposed text provides consistency with proposed new section.
This code change will bring Chapter 10 in line with the newest ASME national consensus standards relative to Grease Interceptor technologies.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P127–06/07
1003.3.4, Chapter 13

Proponent: Billy Smith and Max Weiss, Jay R. Smith Mfg., Co.

1. Revise as follows:

1003.3.4 Grease interceptors, ~~and~~ automatic grease removal devices and fat, oil and grease disposal systems. Grease interceptors, ~~or~~ automatic grease removal devices or fat, oil and grease disposal systems shall conform to PDI G101, ASME A112.14.3, ~~or~~ ASME A112.14.4 or ASME A112.14.6 and shall be installed in accordance with the manufacturer's instructions.

2. Add standard to Chapter 13 as follows:

ASME
A112.14.6–06 FOG (Fats, Oils and Greases) Disposal Systems

Reason: Add new requirements to the code.
The proposed text provides consistency with proposed new section.
This code change will bring Chapter 10 in line with the newest ASME national consensus standards relative to Grease Interceptor technologies.

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

Analysis: Results of the review of the proposed standard(s) will be posted on the ICC website by August 20, 2006.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P128–06/07
1003.3.6 (New), Chapter 13

Proponent: Billy Smith and Max Weiss, Jay R. Smith Manufacturing, Co.

1. Add new text as follows:

1003.3.6 Fat, oil and grease disposal systems. The sizing, application and installation of fat, oil and grease disposal systems utilized as wastewater discharge pretreatment devices shall be in accordance with this section. Fat, oil and grease disposal systems shall be considered engineered systems and shall comply with the requirements of this chapter. Fat, oil and grease disposal systems shall be engineered, sized and installed in accordance with the manufacturer's specifications. Fat, oil and grease disposal systems shall comply with the provisions of ASME A112.14.3, ASME A114.14.6 and PDI G101 or other approved national consensus standards applicable to fat, oil and grease disposal systems discharging not more than 100 mg/L of fats, oils and greases.

2. Add standard to Chapter 13 as follows:

ASME
A112.14.6–06 Fog (Fats, Oils and Greases) Disposal Systems

Reason: Add new requirements to the code.

Fat, oil and grease disposal systems are designed as wastewater pretreatment devices and are not covered in other sections of this code. Fat, oil and grease disposal systems are subject to national consensus standards ASME A112.14.3 and ASME A112.14.6. Absence of explicit application requirements invites an hoc system modification compromising manufacturer's design parameters and system performance. Application of general code requirements to engineered systems may compromise performance or integrity of the system, thereby endangering public health and safety. Misapplication of the code to a fat, oil and grease disposal system could result in the operator of the system being subject to civil and or criminal penalties for unlawful pollutant discharge. Misapplication of the code to a fat, oil and grease disposal system without opportunity of designer or manufacturer inspection and authorization could subject the designer, engineer and manufacturer to civil action of system failure and or collateral property damage from overflow or back up. Proposed code additions and revisions provide clarification and harmonization with national consensus standards.

This code change will bring Chapter 10 in line with the newest ASME national consensus standards relative to Grease Interceptor technologies.

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

Analysis: Results of the review of the proposed standard(s) will be posted on the ICC website by August 20, 2006.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P129–06/07
1003.3.6 (New), 1003.3.6.1 (New), 1003.3.6.2 (New)

Proponent: Gary S. Duren, Code Compliance, Inc.

Add new text as follows:

1003.3.6 Outdoor grease interceptors. An outdoor grease interceptor shall have a minimum depth of 4 feet and a liquid capacity of 1,000 gallons or the volume necessary to provide a detention time of at least 24 hours based on the maximum daily measured or calculated flow, whichever is larger. The interceptor shall be watertight and constructed of 4000 psi concrete or other approved material. The minimum liquid depth shall be 36 inches measured from the bottom of the tank to the outlet invert. A minimum of 8 inches of air space shall be provided between the liquid surface and the underside of the tank top. The liquid capacity of the tank shall be permanently marked on the top of the tank between the outlet access hole and the outlet wall or on the vertical wall between the top of the tank and the top of the outlet opening. The invert elevation of the inlet shall be between 2 and 4 inches above the invert elevation of the outlet. The minimum size of the inlet and outlet piping shall be 4 inches. The inlet and outlet pipes shall be provided with a vertical tee installed in the interior of the interceptor. The bottom of the run of the tees shall be extended to within 12 inches of the bottom of the tank and the top of the run shall be at least 3 inches above the static liquid level of the tank.

1003.3.6.1 Location of outdoor grease interceptors. Outdoor grease interceptors shall be readily accessible for inspection and maintenance. Permanent or temporary structures or containers shall not be placed directly over the

interceptor. Outdoor grease interceptors installed in traffic areas shall be designed to accommodate the traffic loading. The interceptor shall be set level on a consolidated, stable base so that tipping or settling can not occur. The interceptor shall be located so as to maintain all required separation distances from well water supplies, building structures, watercourses and drains based upon flow and horizontal measurements.

1003.3.6.2 Cleanouts and manholes. Separate cleanout covers shall be provided over the inlet and outlet of the interceptor so as to provide ready access for inspection and cleaning. Cleanouts shall be fitted with manhole extensions to grade. In areas subject to traffic, the extensions shall have ductile iron frames and manhole covers. Where concrete covers are used, the lid must weigh either a minimum of 59 pounds or contain a locking mechanism to prevent unauthorized entrance. The manholes, extensions, and inlet and outlet access holes to the interceptor shall have a minimum inside diameter of 17 inches. All manhole covers shall have a permanent placard with a warning, "Entrance into the tank could be fatal".

Reason: To provide enforcement personnel with the minimum requirements for in-ground pre-cast grease interceptors.

Cost Impact: The code change proposal will increase the cost of construction.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P130–06/07
1003.10; IPMC [P] 506.3 (New)

Proponent: Guy Wayne Harrison, Josam Company

PART I – IPC

Revise as follows:

1003.10 Access and maintenance of interceptors and separators. Access shall be provided to each interceptor and separator for service and maintenance. Interceptors and separators shall be maintained by periodic removal of accumulated grease, scum, oil, or other floating substances and solids deposited in the interceptor or separator Where it has been determined by the code official that a grease interceptor is not being maintained and serviced as intended by this code and the manufacturer's instructions, an approved interceptor monitoring system shall be provided or a maintenance program shall be established with documentation submitted to the code official.

PART II

Add new text to IPMC as follows:

(IPMC) [P] 506.3 Grease interceptors. Where it has been determined by the code official that a grease interceptor is not being maintained and serviced as intended by this code and the manufacturer's instructions, an approved interceptor monitoring system shall be provided or a maintenance program shall be established with documentation submitted to the code official.

Reason: This proposed code change is based on technical substantiation to the current "revisions" of ANSI ASME A 112.14.3, and PDI G-101, which is both currently, referenced standards, in the 2006 *International Plumbing Code* (IPC).

This proposal shows the need to add new requirements to the code for additional property maintenance to the current provisions of the Code, to help jurisdictions stay in compliance with new Federal guidelines. The lack of controlled maintenance for grease interceptors in the current Code text provisions are inadequate and will not be "consistent" with the revised referenced standards, as well as other "model plumbing codes".

The current proposed "revisions" to the consensus standards, which contains the same proposed text, as well as the Canadian Standards Association, (CSA B481), and International Association of Plumbing and Mechanical Officials', (IAPMO- ANSI Z1001-05) Grease Interceptors, has already included the need for the monitoring devices for maintenance issues to stay within Federal guidelines. These revisions will be provided to the committee upon publication, (not yet in print).

Bibliography: Additional submittals of the revised consensus standards will be provided upon publication to this committee. However, in the event that you will not allow the revisions to the referenced "consensus" standards to be submitted after publication, I wish to submit other model plumbing code requirements to verify the legitimacy of the proposal, which has included the proposed language to be consistent with the consensus standards. I am providing to the committee two (2) copies of the text from the IAPMO/UPC (2006 Plumbing Code). Section 1014.1.2

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

Analysis: Part II of this proposal is being heard by the IPC Committee because the subject of sanitary drainage (Section 506) has been determined to be within the scope of the IPC.

PART I – IPC

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

PART II – IPMC

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P131–06/07
1101.9

Proponent: David M. Wenzlaff, County of Henrico, Virginia, representing Virginia Plumbing and Mechanical Inspectors Association (VPMIA) and the Virginia Building Code Officials Association (VBCOA)

Revise as follows:

1101.9 Backwater valves. Backwater valves shall be installed in a storm drainage system ~~shall conform to~~ in accordance with Section 715.

Reason: This is a clarification that all the requirements of Section 715 are applicable to backwater valves installed in a storm system.

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P132–06/07
Table 1102.4, Chapter 13

Proponent: Steven G. Matczak, Advanced Drainage Systems, Inc.

1. Revise as follows:

TABLE 1102.4
BUILDING STORM SEWER PIPE

MATERIAL	STANDARD
Polyethylene (PE) plastic pipe	ASTM F 2306/F 2306M

(Portions of table not shown do not change)

2. Add standard to Chapter 13 as follows:

ASTM

F 2306/F 2306M–05 12" to 60" annular Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings for Gravity-Flow Storm Sewer and Subsurface Drainage Applications

Reason: Add a storm sewer pipe material to Table 1102.4 with the corresponding ASTM standard.

This code change is proposed because there is currently an ASTM Standard specification for this pipe material. HDPE pipe has been used in gravity-flow storm sewer drain applications (both watertight and soiltight) for over 20 years. HDPE pipe is included in the IPC Storm Drain section for subsoil drain pipe applications with the appropriate ASTM standard. Now that an ASTM standard for gravity-flow storm sewer pipe exists it seems natural for the material to be included in Table 1102.4 of the IPC. The acceptance of the proposed change will enable manufacturers with products that meet the requirements of the ASTM standards to have their products used. This change will also allow the authorities having jurisdiction to permit the use of products that meet the ASTM standards.

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

Analysis: Results of the review of the proposed standard(s) will be posted on the ICC website by August 20, 2006.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P133–06/07
1106.2, Table 1106.2

Proponent: Daniel J. Walker, P.E., Metal Building Manufacturers Association (MBMA)

Revise as follows:

1106.2 Vertical conductors and leaders. Circular vertical conductors and leaders shall be sized for the maximum projected roof area, in accordance with Table 1106.2. Rectangular and square vertical conductors and leaders shall be sized using the Equations 11-1 and 11-2 respectively:

(Rectangular Equation 11-1):

$$D_e = \sqrt{s_1 s_2}$$

(Square Equation 11-2):

$$D_e = s_1$$

Where:

D_e = The equivalent diameter in inches to be used with Table 1106.2.
s_1 = The dimension of a side of the square or rectangular cross-section of the leader.
s_2 = The dimension of a side adjacent to s_1.

Revise as follows:

TABLE 1106.2
SIZE OF VERTICAL CONDUCTORS AND LEADERS

DIAMETER OF OF LEADER (inches)[a, b]	HORIZONTALLY PROJECTED ROOF AREA (square feet)											
	Rainfall rate (inches per hour)											
	1	2	3	4	5	6	7	8	9	10	11	12

(Portions of table not shown do not change)

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929m^2.
a. Sizes indicated are the diameter of circular piping. This table is applicable to piping of other shapes provided the cross-sectional shape fully encloses a circle of the diameter indicated in this table.
b. Interpolation is permitted for leader sizes that fall between those listed in this table.

Reason: The purpose of this change is to provide design values for rectangular leaders, which are already commonplace in commercial construction.

The current code provisions only provide design values for circular storm leaders and conductors. While circular interior conductors are commonplace, exterior leaders are almost always fabricated from sheet metal coils into rectangular profiles. The current code allows for the use of other geometric profiles, but it restricts the allowable flow to the area of an inscribed circle. This provision is overly conservative and was not derived using hydraulic theory. Furthermore, rectangular shapes are severely penalized because the inscribed circle does not account for the additional flow capacity of a rectangular profile.

Table 1106.2 of the 2006 International Plumbing Code is based on empirical investigations of circular leaders. The table provides, for the purposes of design, the relationship between roof area and rainfall rates and the required leader diameter. The Metal Building Manufacturers Association has performed an engineering study to determine a more reasonable rationale for determining the flow capacity of rectangular vertical leaders. The following is a geometrical argument, which provides a reasonable design of rectangular leaders. Applied in the practical range of rectangular leader cross-section geometry, this method will be conservative, i.e. flow in the rectangular leader will be more than the equivalent circular leader. A simplistic way of looking at this in terms of equivalent flow capacity is to imagine you are deforming a circular leader into an ellipse and fitting it inside the rectangular leader.

The following is the algebraic derivation of the equivalent circular diameter, D_e. The rectangular leader, inscribed ellipse, and the “equivalent” circular diameter are shown in the attached figure. The assumptions applied are: (1) The inscribed elliptical area provides a conservative estimate of flow through the rectangular area, and (2) The equivalent circle is based on setting the area of the ellipse equal to the area of the equivalent circle. For the inscribed ellipse,

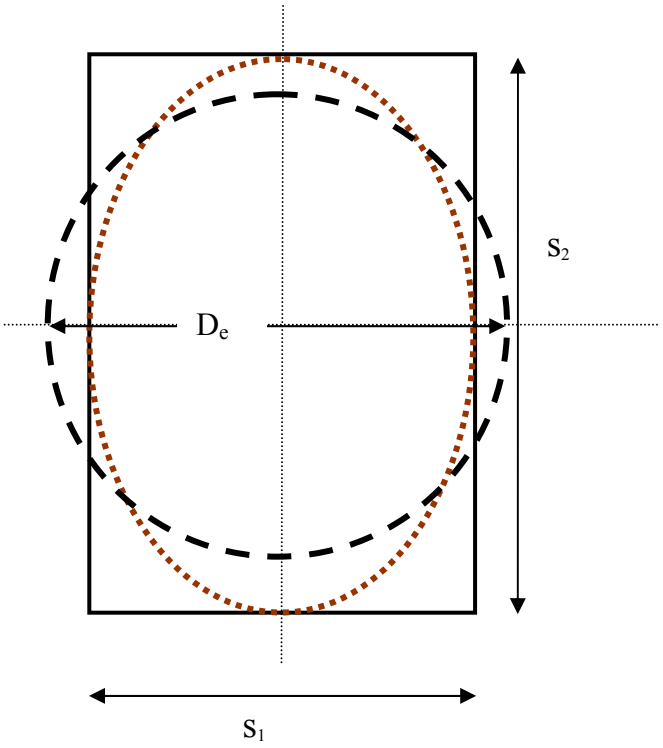
$A_{ellipse} = A_{equivalent\ circle}$

$$\pi\left(\frac{s_1}{2}\right)\left(\frac{s_2}{2}\right) = \frac{\pi D_e^2}{4}$$

By algebraic simplification, $D_e = \sqrt{s_1 s_2}$

D_e is the equivalent diameter of the effective circular cross section for the rectangular leader, and s_1 and s_2 are the length of the sides of the rectangular leader. Table 1106.2 can then be used to determine the maximum horizontal projected roof area that can be drained using the rectangular leader.

Rectangular and Equivalent Circular Leaders



For the inscribed ellipse,

a = ½ (s_1) = minor axis of ellipse.

b = ½ (s_2) = major axis of ellipse.

Then, for area equivalence,

$A_{ellipse} = A_{equivalent\ circle}$

$$\pi ab = \frac{\pi D_e^2}{4}$$

$$\pi\left(\frac{s_1}{2}\right)\left(\frac{s_2}{2}\right) = \frac{\pi D_e^2}{4}$$

By algebraic simplification,

$$D_e = \sqrt{s_1 s_2}$$

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

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

P134–06/07
1107.1; IBC 1503.4.2 (New)

Proponent: Tom Rubottom, City of Lakewood, Colorado, representing The Colorado Chapter of ICC

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IBC STRUCTURAL CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

1107.1 Secondary drainage required. Secondary (emergency) roof drains or scuppers shall be provided where the roof perimeter construction extends above the roof in such a manner that water will be entrapped if the primary drains allow buildup for any reason. The secondary (emergency) drains and scuppers shall be installed with the inlet flow line located 2 inches (51 mm) above the low point of the roof.

PART II – IBC

Add new text as follows:

1503.4.2 Parapet wall scupper elevation. Parapet wall roof drainage scuppers and overflow scuppers shall be installed with the inlet flow lines located 2 inches (51 mm) above the low point of the roof.

Reason: In areas where there is infrequent rainfall followed by heavy downpours an accumulation of leaves and other debris could block secondary (emergency) drains and scuppers if located at the same elevations as the primary drains or scuppers.

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

Analysis: The term “flow line” is not defined. Is “invert” intended? Is it the intent to require an elevation difference of exactly 2 inches?

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IBC STRUCTURAL

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P135–06/07
Appendix C, C101.12; IRC Appendix O, AO 101.12

Proponent: Jud Collins, JULYCO

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

C101.12 Overflow. The collection reservoir shall be equipped with an overflow pipe having the same or larger diameter as the influent pipe for the gray water. The overflow pipe shall be trapped and shall be indirectly connected to the sanitary drainage system.

PART II – IRC PLUMBING

Revise as follows:

AO101.12 Overflow. The collection reservoir shall be equipped with an overflow pipe of the same diameter as, or larger than, the influent pipe for the gray water. The overflow pipe shall be trapped and shall be indirectly connected to the sanitary drainage system.

Reason: The expanded provisions for gray water utilization were added to the IPC and IRC in the last code change cycle. In the 2003 IPC, the overflow pipe was required to be directly connected to the sanitary drainage system. The new provisions changed the requirement to an indirect connection. The indirect connection allows the overflow pipe to be open to the atmosphere. The collection reservoir is required to be vented and if connected to the sanitary venting system, this allows sewer gas and odors to be dispersed through the overflow pipe. Therefore it is logical that the overflow pipe must be trapped to prevent the dispersal of gas and odors from both the collection reservoir and the sanitary venting system.

Cost Impact: This proposal will cause a slight increase in the cost of construction.

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P136–06/07
Appendix C C102.2; IRC AO102.2

Proponent: Michael W. Cudahy, Plastic Pipe and Fittings Association (PPFA)

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

C102.2 Disinfection. Gray water shall be disinfected by an approved method that employs one or more disinfectants such as chlorine, iodine or ozone that are recommended for use with the pipes, fittings and equipment by the manufacturer of the pipes, fittings and equipment.

PART II – IRC PLUMBING

Revise as follows:

AO102.2 Disinfection. Gray water shall be disinfected by an approved method that uses one or more disinfectants such as chlorine, iodine or ozone that are recommended for use with the pipes, fittings and equipment by the manufacturer of the pipes, fittings and equipment.

Reason: To ensure that incompatible disinfection agents are not used with pipe systems and equipment.
An addition should be made here to protect pipes or equipment that could be attacked by the various disinfection agents chosen.
There may be times when materials in piping systems or equipment are not recommended for use with the current list of disinfection agents.

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P137–06/07
Appendix C C102.5; IRC AO102.5

Proponent: Michael W. Cudahy, Plastic Pipe and Fittings Association (PPFA)

THIS PROPOSAL IS ON THE AGENDA OF THE IPC AND THE IRC PLUMBING CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IPC

Revise as follows:

C102.5 Materials. Distribution piping shall conform to one of the standards listed in Table ~~605.4~~ 605.3.

PART II – IRC PLUMBING

Revise as follows:

AO102.5 Materials. Distribution piping shall conform to one of the standards listed in Table ~~P2904.5~~ P2904.4 of the *International Residential code*.

Reason: To use standard service pipe in gray water distribution systems.
In this section, "distribution piping" refers to the distribution of "gray water" or recycled water used as "flush water". Currently, Table 605.4 (for hot and cold water distribution) is the indicated section. This should be changed to Table 605.3 (water service) as for this purpose service pipe is absolutely suitable and would be even less likely to be mistaken for potable service pipe in the building. We are aware of no situation where the gray water, once sent for redistribution in the building would ever be heated or used as potable water. Service pipe is the proper choice.
Service pipe is the proper choice for gray water distribution systems.

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

PART I – IPC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II – IRC PLUMBING

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

P138–06/07
Chapter 13

Proponent: Standards writing organizations as listed below.

Revise standards as follows:

ASSE

American Society of Sanitary Engineering
901 Canterbury Road, Suite A
Westlake, OH 44145

Standard reference number	Title
1010-2004 ~~1996~~	Performance Requirements for Water Hammer Arresters
1011-2004 ~~1993~~	Performance Requirements for Hose Connection Vacuum Breakers
1013-2005 ~~1999~~	Performance Requirements for Reduced Pressure Principle Backflow Preventers and Reduced Pressure Fire Protection Principle Backflow Preventers
1014-2005 ~~1990~~	Performance Requirements for Hand-Held Showers
1015-2005 ~~1999~~	Performance Requirements for Double Check Backflow Prevention Assemblies and Double Check Fire Protection Backflow Prevention Assemblies
1016-1996	Performance Requirements for Automatic Compensating ~~Individual Thermostatic, Pressure Balancing and Combination Control~~ Valves for Individual Showers and Tub/Shower Combinations ~~Bathing Facilities~~
1017-2003 ~~1999~~	Performance Requirements for Temperature Actuated Mixing Valves for Hot Water Distribution Systems
1019-2004 ~~1997~~	Performance Requirements for Wall Hydrants, Freeze Resistant, Automatic Draining Type
1020-2004 ~~1998~~	Performance Requirements for Pressure Vacuum Breaker Assembly
1047-2005 ~~1999~~	Performance Requirements for Reduced Pressure Detector Fire Protection Backflow Prevention Assemblies
1048-2005 ~~1999~~	Performance Requirements for Double Check Detector Fire Protection Backflow Prevention Assemblies
1052-2004 ~~93~~	Performance Requirements for Hose Connection Backflow Preventers

ASTM

ASTM International
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959

Standard reference number	Title
A 53/A 53M-05 ~~02~~	Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
A 74-05 ~~04a~~	Specification for Cast Iron Soil Pipe and Fittings
A 312/A 312M-05a ~~04a~~	Specification for Seamless and Welded Austenitic Stainless Steel Pipes
A 888-05 ~~04a~~	Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste and Vent Piping Application
B 32-04 ~~03~~	Specification for Solder Metal
B 42-02e01	Specification for Seamless Copper Pipe, Standard Sizes
B 152/B 152M-06 ~~00~~	Specification for Copper Sheet, Strip Plate and Rolled Bar
B 687-99(2005)e01	Specification for Brass, Copper, and Chromium-Plated Pipe Nipples
C 4-04eo1 ~~03~~	Specification for Clay Drain Tile and Perforated Clay Drain Tile
C 14-05a ~~03~~	Specification for Concrete Sewer, Storm Drain and Culvert Pipe
C 76-05b ~~04a~~	Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
C 296-(2004)e01 ~~00~~	Specification for Asbestos-Cement Pressure Pipe
C 428-97(20052)	Specification for Asbestos-Cement Nonpressure Sewer Pipe
C 443-05a ~~03~~	Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets
C 508-00(2004) ~~00~~	Specification for Asbestos-Cement Underdrain Pipe
C 564-03a ~~04a~~	Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings
C 700-05 ~~02~~	Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated
C 1053-~~00~~(2005)	Specification for Borosilicate Glass Pipe and Fittings for Drain, Waste, and Vent (DWV) Applications

C 1173-06 ~~02~~	Specification for Flexible Transition Couplings for Underground Piping Systems
C 1440-03 ~~99e01~~	Specification for Thermoplastic Elastomeric (TPE) Gasket Materials for Drain, Waste, and Vent (DWV), Sewer, Sanitary and Storm Plumbing Systems
D 1527-99(2005)~~e01~~	Specification for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe, Schedules 40 and 80
C 1540-04 ~~02~~	Specfication for Heavy Duty Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings
D 1785-05 ~~04~~	Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80 and 120
D 1869-95 (2005~~0~~)	Specification for Rubber Rings for Asbestos-Cement Pipe
D 2235-04 ~~01~~	Specification for Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings
D 2241-05 ~~04a~~	Specification for Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR-Series)
D 2282-(2005)~~99e01~~	Specification for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe (SDR-PR)
D 2464-99e01	Specification for Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80
D 2466-05 ~~02~~	Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40
D 2467-05 ~~04~~	Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80
D 2564-04 ~~02~~	Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems
D 2657-03 ~~97~~	Practice for Heat Fusion Joining of Polyolefin Pipe and Fittings
D 2665-04ae02~~1~~	Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings
D 2729-03 ~~96a~~	Specification for Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings
D 2751-05 ~~96a~~	Specification for Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings
D 2846/D 2846M-99e01	Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems
D 2949-01ae01	Specification for 3.25-in. Outside Diameter Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings
D 3034-04a	Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings
D 3139-98(2005)	Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals
D 3212-96a(2003)e01	Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
D 3311-02e01	Specification for Drain, Waste and Vent (DWV) Plastic Fittings Patterns
F 405-05 ~~97~~	Specification for Corrugated Polyethylene (PE) Tubing and Fittings
F 439-05 ~~02e01~~	Specification for Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80
F 442/F 442M-99(2005)	Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe (SDR-PR)
F 714-05 ~~03~~	Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter
F 876-05 ~~04~~	Specification for Crosslinked Polyethylene (PEX) Tubing
F 877-05 ~~02e01~~	Specification for Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems
F 891-04 ~~00e01~~	Specification for Coextruded Poly (Vinyl Chloride) (PVC) Plastic Pipe with a Cellular Core
F 1281-05 ~~03~~	Specification for Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Pressure Pipe
F 1282-06 ~~03~~	Specification for Polyethylene/Aluminum/Polyethylene (PE-AL-PE) Composite Pressure Pipe
F 1412-01e01	Specification for Polyolefin Pipe and Fittings for Corrosive Waste Drainage
F 1807-05 ~~04~~	Specifications for Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) tubing
F 1866-05 ~~98~~	Specification for Poly (Vinyl Chloride) (PVC) Plastic Schedule 40 Draniage and DWV Fabricated Fittings
F 1960-05 ~~04a~~	Specification for Cold Expansion Fittings with PEX Reinforcing Rings for Use with Cross-linked Polyethylene (PEX) Tubing
F 1986-01 ~~00a~~	Specification for Multilayer Pipe, Type 2, Compression Fittings and Compression Joints for Hot and Cold Drinking Water Systems
F 2159-05 ~~03~~	Specification for Plastic Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing
F 2080-05 ~~04~~	Specification for Cold-Expansion Fittings with Metal Compression-Sleeves for Cross-linked Polyethylene (PEX) Pipe
F 2389-06 ~~04~~	Specification for Pressure-Rated Polypropylene (PP) Piping Systems

NFPA

National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02269-9101

Standard reference number	Title
99C-05 ~~02~~	Gas and Vacuum Systems

UL

Underwriters Laboratories,Inc.
333 Pfingsten Road
Northbrook, IL 60062

Standard reference number	Title
508-99	Industrial Control Equipment - with Revisions through July 2005

Reason: The *ICC Code Development Process for the International Codes* (Procedures) Section 4.5* requires the updating of referenced standards to be accomplished administratively, and be processed as a Code Proposal. In May 2005, a letter was sent to each developer of standards that are referenced in the I-Codes, asking them to provide ICC with a list of their standards in order to update to the current edition. Above is the list received of the referenced standards under the maintenance responsibility of the IPC Committee.

> *** 4.5 Updating Standards:** The updating of standards referenced by the Codes shall be accomplished administratively by the appropriate code development committee in accordance with these full procedures except that multiple standards to be updated may be included in a single proposal.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF