2004/2005 PROPOSED CHANGES TO THE INTERNATIONAL RESIDENTIAL CODE

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TENTATIVE ORDER OF DISCUSSION

2004-2005 PROPOSED CHANGES TO THE INTERNATIONAL RESIDENTIAL CODE

PLUMBING/MECHANICAL COMMITTEE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation **does not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair.

RP — International Residential Code-Plumbing
P — International Plumbing Code
RM — International Residential Code-Mechanical
M — International Mechanical Code

IRC PLUMBING

P4-04/05, Part II
P5-04/05, Part II
P7-04/05, Part II
P20-04/05, Part II
P22-04/05, Part II
P23-04/05, Part II
P24-04/05, Part II
P28-04/05, Part II
RP1-04/05
RP2-04/05
P32-04/05, Part II
RP3-04/05
P33-04/05, Part II
P34-04/05, Part II
P35-04/05, Part II
P36-04/05, Part II
P37-04/05, Part II
P38-04/05, Part II
P39-04/05, Part II
RP4-04/05
P40-04/05, Part II
RB54-04/05, Part II
P43-04/05, Part II
P45-04/05, Part II
P46-04/05, Part II
P47-04/05, Part II
P48-04/05, Part II
P51-04/05, Part II
P52-04/05, Part II
P53-04/05, Part II
P55-04/05, Part II
P57-04/05, Part II
P58-04/05, Part II
P59-04/05, Part II
P62-04/05, Part II
P66-04/05, Part II
P67-04/05, Part II
P68-04/05, Part II
P69-04/05, Part II
P70-04/05, Part II
P71-04/05, Part II
P72-04/05, Part II
P73-04/05, Part II
P74-04/05, Part II
P75-04/05, Part II
P76-04/05, Part II
P77-04/05, Part II
P78-04/05, Part II
P79-04/05, Part II
P80-04/05, Part II
P81-04/05, Part II
P82-04/05, Part II
P83-04/05, Part II
P88-04/05, Part II
P89-04/05, Part II
P90-04/05, Part II
P91-04/05, Part II
RP5-04/05
P93-04/05, Part II
P94-04/05, Part II
P95-04/05, Part II
P96-04/05, Part II
P97-04/05, Part II
P98-04/05, Part II
P99-04/05, Part II
P100-04/05, Part II
P101-04/05, Part II
P102-04/05, Part II
P103-04/05, Part II
P104-04/05, Part II
P105-04/05, Part II
P106-04/05, Part II
P109-04/05, Part II
P110-04/05, Part II
RP6-04/05
P129-04/05, Part II
P136-04/05, Part II
RP7-04/05

IRC MECHANICAL

M9-04/05
M10-04/05
RM1-04/05
M13-04/05
M14-04/05
RM2-04/05
M93-04/05
M16-04/05
M17-04/05
RM3-04/05
RM4-04/05
RM5-04/05
M40-04/05
M43-04/05
M44-04/05
M45-04/05
RM6-04/05
RM7-04/05
RM8-04/05
RM9-04/05
RM10-04/05
RM11-04/05
M84-04/05
RM12-04/05
RM13-04/05
RM14-04/05

RP1-04/05

P2709.2, P2709.2.1(New), P2709.2.2(New), Chapter 43

Proponents: Lonnie Erwin, City of Dallas, Texas

Michael Knight, Dallas Specialty & Mfg. Co., representing himself

1. Revise as follows:

P2709.2 Lining required. The adjoining walls and floor framing, enclosing on-site built-up shower receptors shall be lined with sheet lead, copper or a plastic liner material that complies with ASTM D4068 or ASTM D4551. The lining material shall extend not less than 3 inches (76 mm) beyond or around the rough jambs and not less than 3 inches (76 mm) above finished thresholds. Hot mopping shall be permitted in accordance with Section P2709.2.1.

Add new text as follows:

P2709.2.1 PVC sheets. Plasticized polyvinyl chloride (PVC) sheets shall be a minimum of 0.040 inch (1.02 mm) thick, and shall meet the requirements of ASTM D4551. Sheets shall be joined by solvent welding in accordance with the manufacturer's installation instructions.

(Renumber subsequent sections)

P2709.2.2 Chlorinated polyethylene (CPE) sheets. Nonplasticized chlorinated polyethylene sheet shall be a minimum of 0.040 inch (1.02 mm) thick, and shall meet the requirements of ASTM D 4068. The liner shall be joined in accordance with the manufacturer's installation instructions.

(Renumber subsequent sections)

2. Add new standard to Chapter 43 as follows:

ASTM D4551-96 (2001)	Specification for Poly (Vinyl) Chloride) (PVC) Plastic Flexible Concealed Water-Containment Membrane	P2709.2

Reason: The purpose of this proposal is to clarify the code and add a new standard.

This proposal is superior to the current provisions of the code in that it is not overly restrictive to PVC sheets (ASTM D4551). The current code provision is overly restrictive because PVC sheets (ASTM D4551) are the most commonly used materials today in this type of construction. By adding this text it will improve the current code and bring it up to date with the Section 417.5.2.1of the IPC, which allowsPVC sheets (ASTM D4551). The current code provisions are inadequate and overly restrictive by not including PVC sheets (ASTM D4551), which is the most often used and cost efficient material on the market today. ASTM D 4068 is already referenced in Section P2709.2 and should have a correlating material lining section as stated in the proposed change.

Analysis: It is staff's opinion that ASTM D 4551-96 (2001) complies with Section 3.6 of the ICC code development procedures.

Consistent action should be considered for related proposal RP2-04/05.

Cost Impact: None

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

RP2-04/05

P2709.2, Chapter 43

Proponent: Judson W. Collins, Edmond, OK, representing himself

1. Revise as follows:

P2709.2 Lining required. The adjoining walls and floor framing, enclosing on-site built-up shower receptors shall be lined with sheet lead, copper or a plastic liner material, a minimum of 0.040 inch (1.02 mm) thick, that complies with ASTM D 4068 or ASTM D 4551. The lining material shall extend not less than 3 inches (76 mm) beyond or around the rough jambs and not less than 3 inches (76 mm) above finished thresholds. Hot mopping shall be permitted in accordance with Section P2709.2.1.

2. Add new standard to Chapter 43 as follows;

ASTM D4551-96 (2001)	Specification for Poly (Vinyl) Chloride) (PVC) Plastic Flexible Concealed Water-Containment Membrane	P2709.2

Reason: Current text limits plastic liners to only chlorinated polyethylene (CPE) by referencing ASTM D 4068. PVC is an acceptable liner material and is recognized as such in the IPC that, in addition to ASTM D 4068, also references ASTM D 4551 "Specification for Poly (Vinyl Chloride) (PVC) Plastic Flexible Concealed Water-Containment Membrane". The minimum thickness of plastic liner material is not addressed currently and the proposed minimum thickness is consistent with the requirements in the IPC.

Analysis: It is the staff's opinion that ASTM D4551 complies with Section 3.6 of the ICC Code Development Procedures. This standard is referenced in Section 417.5.2.1 of the IPC.

Consistent action should be considered for related proposal RP1-04/05.

Cost Impact: none

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

RP3-04/05
P2720.1

Proponent: Robert A. Packheiser, CBO, National Association of Home Builders, Washington, D.C.

Revise as follows:

P2720.1 (Supp) Access to pump. Access shall be provided to circulation pumps in accordance with the ~~fixture~~ manufacturer's installation instructions. Where manufacturer's instructions do not specify the location and minimum size of field fabricated access openings, a 12"x 12" (304 mm x 304 mm) minimum size ~~door or panel~~ opening shall be installed to provide access to the circulation pump. Where pumps are located more than 2 feet (609 mm) from the access opening, a 18"x 18" (457 mm x 457 mm) minimum size ~~door or panel~~ opening shall be installed. A door or panel shall be permitted to close the opening. In all cases, the access ~~panel and door~~ openings shall be unobstructed and ~~large enough~~ of the size necessary to permit the removal and replacement of the circulation pump.

Reason: This is to provide clarification for access to, and replacement of, the circulation pump. It is the size of the opening that is of concern, not a possible door. This clarifies that it is the opening that needs to be of sufficient size as indicated. If one so desires, a door or other means may be installed to close the opening.

Cost Impact: None

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

RP4-04/05
P2803.6.1

Proponent: Robert A. Packheiser, CBO, National Association of Home Builders, Washington, D.C.

Revise as follows:

P2803.6.1 (Supp) Requirements for discharge piping. The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

1. Not be directly connected to the drainage system.
2. Discharge through an air gap located in the same room as the water heater or to the outdoors in climates not subject to freezing temperatures.
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.
5. Discharge to the floor, to an indirect waste receptor, or to the outdoors. Where discharging to the outdoors in areas subject to freezing, discharge piping shall be first piped to an indirect waste receptor through an air gap located in a conditioned area.
6. Discharge in a manner that does not cause personal injury or property damage.
7. Discharge to a termination point that is readily observable by the building occupants.
8. Not be trapped.
9. Be installed so as to flow by gravity.
10. Not terminate more than 6 inches (152 mm) above the floor or waste receptor.
11. Not have a threaded connection at the end of such piping.
12. Not have valves or tee fittings.
13. Be constructed of those materials listed in Section P2904.5 or materials tested, rated and approved for such use in accordance with ASME A112.4.1.

Reason: During the 2003-04 Code Development Cycle the aspect of discharging to the outside for one- and two family dwellings located in an area where the climate is not subject to freezing was lost in the rearrangement of the text of Section P2803.6.1 by Proposal P45-03/04. The Proposal also rearranged the related text in the IPC. The Proponent's Reason for this change did not provide any reason for not including the exact IRC text, only to show that the "*thirteen requirements in one paragraph are far too cumbersome and easily are misunderstood and misapplied*." The IRC-PM Committee realized this deletion and accepted the Proposal "Approved as Modified", to include the missing text. The Public Comment on these items proposed additional changes that were not acceptable to the voting members, and the original proposal for both the IPC and IRC were Approved as Submitted. Considering this provision only applies to one- and two-family dwellings, discharge to the outside in climates not subject to freezing poses no problems.

Cost Impact: None

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

RP5-04/05
P3005.5 (New)

Proponent: Charles Gerber, Henrico County, VA, representing Virginia Plumbing and Mechanical Inspectors Association and Virginia Building Code Official Association

Add new text follows:

P3005.5 Connections to offsets and bases of stacks. Horizontal branches shall connect to the bases of stacks at a point located not less than 10 times the diameter of the

drainage stack downstream from the stack. Horizontal branches shall connect to horizontal stack offsets at a point located not less than 10 times the diameter of the drainage stack downstream from the upper stack.

Reason: This information is very important to the functional design of plumbing as it applies to both residential and commercial plumbing systems and is necessary for the user as well as the code official. This is current text in Section 704.4 of the IPC.

Cost Impact: none

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

RP6 -04/05
Table P3201.7

Proponent: Robert A. Packheiser, CBO, National Association of Home Builders, Washington, D.C.

Revise as follows:

TABLE P3201.7
SIZE OF TRAPS AND TRAP ARMS
FOR PLUMBING FIXTURES

PLUMBING FIXTURE	TRAP SIZE MINIMUM (inches)
Shower	~~2~~ 1½

Reason: The 1-1/2 inch minimum trap size is shown in IPC Table 709.1 for showers. This minimum size would apply to showers in commercial installations such as gyms, health clubs, and spas where the use could easily be more than that of a one-and two-family dwelling. Also, as every shower head is restricted to a maximum flow rate of 2.5 gpm, the flow rate will not exceed the limitations of a 1-1/2 inch trap and drain. The minimum trap size for a beauty parlor sink used for washing hair is 1-1/2 inches in diameter. Many jurisdictions and contractors are using the 1-1/2 inch minimum trap size for showers as their present standard.

Cost Impact: None

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

RP7-04/05
Chapter 43

Proponent: Standards writing organizations as listed below.

Revise as follows:

ANSI

American National Standards Institute
25 West 43rd Street
Fourth Floor
New York, NY 10036

Standard reference number	Title
Z21.22-1999 (R2003)	Relief Valves for Hot Water Supply Systems-with Addenda Z21.22a-2000 (R2003) and Z21.22b-2001 (R2003)

ASME

American Society of Mechanical Engineers
Three Park Avenue
New York, NY 10016-5990

Standard reference number	Title
A112.18.1-2003 ~~2000~~	Plumbing Fixture Fittings
A112.18.6-2003 1999	Flexible Water Connectors
A112.19.2-2003 ~~1998~~	Vitreous China Plumbing Fixtures and Hydraulic Requirements for Water Closets and Urinals ~~with 2000 Supplement~~
A112.19.4M-1994 (R1999)	Porcelain Enameled Formed Steel Plumbing Fixtures -with 1998 and 2000 Supplements
A112.19.9M-1991(Reaffirmed 2002) ~~1998~~	Non-Vitreous Ceramic Plumbing Fixtures - with 2002 Supplement
B16.3 1998 ~~1999~~	Malleable Iron Threaded Fittings Classes 150 and 300
B16.9 2003 ~~2001~~	Factory-Made Wrought Steel Buttwelding Fittings

ASTM

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

Standard reference number	Title
A 74-04 ~~03~~	Specification for Cast Iron Soil Pipe and Fittings
A 126-04 ~~95(2001)~~	Specification for Gray Iron Castings for Valves, Flanges, and Pipe Fittings
A 312/A 312/M-04a ~~02~~	Specification for Seamless and Welded Austenitic Stainless Steel Pipes
A 377-03 ~~99~~	Index of Specification for Ductile-Iron Pressure Pipe
A 888-04 ~~98e1~~	Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste and Vent Piping Application
B 32-03 ~~00e01~~	Specification for Solder Metal
B 42-02e01	Specification for Seamless Copper Pipe, Standard Sizes
B 43-98(2004)	Specification for Seamless Red Brass Pipe, Standard Sizes
B 88-03 ~~02~~	Specification for Seamless Copper Water Tube

B 251-02e01	Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tube
C 14-03 ~~99~~	Specification for Concrete Sewer, Storm Drain and Culvert Pipe
C 425-04 ~~02~~	Specification for Compression Joints for Vitrified Clay Pipe and Fittings
C 443-03~~02a~~	Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets
C 1277-04 ~~03~~	Specification for Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings
C 1460-04 ~~00~~	Specification for Shielded Transition Couplings for Use with Dissimilar DWV Pipe and Fittings Above Ground
D 1527-99e01	Specification for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe, Schedules 40 and 80
D 1784-03 ~~02~~	Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds
D 1785-04 ~~99~~	Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80 and 120
D 2104-03 ~~01~~	Specification for Polyethylene (PE) Plastic Pipe, Schedule 40
D 2239-03 ~~01~~	Specification for Polyethylene(PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter
D 2241-04a ~~00~~	Specification for Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR-Series)
D 2282-99e01	Specification for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe (SDR-PR)
D 2467-04 ~~02~~	Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80
D 2609-02 ~~00~~	Specification for Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe
D 2665-04ae01 ~~02a~~	Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings
D 2672-~~96a~~ (2003)	Specification for Joints for IPS PVC Pipe Using Solvent Cement
D 2737-~~01~~ 03	Specification for Polyethylene (PE) Plastic Tubing
D 3034-04 ~~00~~	Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings
D 3035-03a ~~01~~	Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter
D 3212-96a(2003)	Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
D 3309-96a(2002)	Specification for Polybutylene (PB) Plastic Hot- and Cold-Water Distribution Systems
F 438-04 ~~02~~	Specification for Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40
F 439-02e01	Specification for Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80
F 493-04 ~~97~~	Specification for Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe and Fittings
F 714-03 ~~01~~	Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter
F 876-04 ~~02e01~~	Specification for Crosslinked Polyethylene (PEX) Tubing
F 877-02ae01	Specification for Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems
F 1281-03 ~~02e02~~	Specification for Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Pressure Pipe
F 1282-03 ~~02e02~~	Specification for Polyethylene/Aluminum/Polyethylene (PE-AL-PE) Composite Pressure Pipe
F 1488-03 ~~00e01~~	Specification for Coextruded Composite Pipe
F 1807-04 ~~02a~~	Specifications for Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) tubing
F 1960-04a ~~03~~	Specification for Cold Expansion Fittings with PEX Reinforcing Rings for Use with Cross-linked Polyethylene (PEX) Tubing
F 1974-04 ~~02~~	Specification for Metal Insert Fittings for Polyethylene/Aluminum/Polyethylene and Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene Composite Pressure Pipe
F 2080-04 ~~02~~	Specification for Cold-Expansion Fittings with Metal Compression-Sleeves for Cross-linked Polyethylene (PER) Pipe

CISPI

Cast Iron Soil Pipe Institute
5959 Shallowford Road, Suite 419
Chattanooga, TN 37421

Standard reference number	Title
301-~~00~~ 04	Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste and Vent Piping Applications
310-~~97~~ 04	Specification for Coupling for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

CSA

Canadian Standards Association
5060 Spectrum Way, Suite 100
Mississauga, Ontario Canada L4W 5N6

Standard reference number	Title
CAN/CSA B137.11.~~99~~ 02	Polypropylene (PP-R) Pipe and Fittings for Pressure Applications

NSF

NSF International
789 N. Dixboro Road
Ann Arbor, MI 48105

Standard reference number	Title
42-2002e	Drinking Water Treatment Units-Aesthetic Effects
44- 2004 ~~2002~~	Residential Cation Exchange Water Softeners
58- 2004 ~~2002~~	Reverse Osmosis Drinking Water Treatment Systems
61-2002e	Drinking Water System Components-Health Effects

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 2004, 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 IRC Plumbing and Mechanical 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