INTERNATIONAL CODE COUNCIL
2012/2013 CODE DEVELOPMENT CYCLE
Group A (2012)

PROPOSED CHANGES TO THE
2012 EDITIONS OF THE

INTERNATIONAL BUILDING CODE®

INTERNATIONAL FUEL GAS CODE®

INTERNATIONAL MECHANICAL CODE®

INTERNATIONAL PLUMBING CODE®

INTERNATIONAL PRIVATE SEWAGE DISPOSAL CODE®

April 29th – May 8th, 2012
Sheraton Dallas Hotel
Dallas, TX

First Printing

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TABLE OF CONTENTS
(Group A)

PAGE

INTRODUCTION

The proposed changes published herein have been submitted in accordance with established procedures and are distributed for review. The publication of these changes constitutes neither endorsement nor question of them but is in accordance with established procedures so that any interested individuals may make their views known to the relevant code committee and others similarly interested. In furtherance of this purpose, the committee will hold an open public hearing at the date and place shown below for the purpose of receiving comments and arguments for or against such proposed changes. Those who are interested in testifying on any of the published changes are expected to be represented at these hearings.

This compilation of code change proposals is available in electronic form only. As part of ICC's green initiative, ICC will no longer print and distribute this document. The compilation of code change proposals will be posted on the ICC website, and CD copies will be distributed to all interested parties on our list.

2012 ICC CODE DEVELOPMENT HEARINGS

These proposed changes will be discussed in public hearings to be held on April 29th, 2012 through May 8th, 2012 at the Sheraton Dallas Hotel, Dallas, Texas. The code committees will conduct their public hearings in accordance with the schedule shown on page xxix.

REGISTRATION AND VOTING

All members of ICC may vote on any assembly motion on proposed code changes to all International Codes. **For identification purposes, eligible voting members must register, at no cost, in order to vote.** The registration desk will be open in the lobby of the convention center according to the following schedule:

Saturday, April 28th	4:00 pm to 6:00 pm
Sunday, April 29th through Tuesday, May 8th	7:30 am to 5:00 pm

Council Policy #28-Code Development (page xii) requires that ICC's membership records regarding ICC members reflect the eligible voters 10 days prior to the start of the Code Development Hearings. This process includes new as well as changes to voting status. Section 5.7.4 of CP #28 (page xix) reads as follows:

> **5.7.4 Eligible Voters:** All members of ICC in attendance at the public hearing shall be eligible to vote on floor motions. Each member is entitled to one vote, except that each Governmental Member Voting Representative in attendance may vote on behalf of its Governmental Member. Code Development Committee members shall be eligible to vote on floor motions. Application, whether new or updated, for ICC membership must be received by the Code Council ten days prior to the commencement of the first day of the public hearing.

As such, new membership applications as well as renewal applications must be received by ICC's Member Services Department by April 18th, 2012. These records will be used to verify eligible voter status for the Code Development Hearings. Members are strongly encouraged to review their membership records for accuracy well in advance of the hearings so that any necessary changes are made prior to the April 18th, 2012 deadline. For information on application for new membership and membership renewal, please go to www.iccsafe.org/membership/join.html or call ICC Member Services at 1-888-ICC SAFE (422-7233)

It should be noted that a corporate member has a single vote. Only one representative of a corporate member will be issued a voting badge. ICC Staff will be contacting corporate members regarding who the designated voting representative will be.

ADVANCED REGISTRATION

You are encouraged to advance register by filling out the registration form available at www.iccsafe.org/springhearings.

CODE DEVELOPMENT PROCESS CHANGES

As noted in the posted Advisory Statement of February 4, 2009, the revised Code Development Process includes maintaining the current 3-year publication cycle with a single cycle of code development between code editions. The schedule for the 2012/2013 Code Development Cycle is the first schedule for the revised code development process (see page ix).

PROCEDURES

The procedures for the conduct of the public hearing are published in *Council Policy #28-Code Development (CP#28)* ("Procedures") on page xii. The attention of interested parties is specifically directed to Section 5.0 of the Procedures. These procedures indicate the conduct of, and opportunity to participate in the ICC Code Development Process. Please review these procedures carefully to familiarize yourself with the process.

There have been a number of revisions to the procedures. Included among these revisions are the following:

Section 1.6: **Recording.** This section was revised to clarify that ICC maintains sole ownership in the content of the hearings and has the right to control its subsequent distribution. In addition, the technology references were updated, using the term "recording" to replace "videotaping".

Section 2.4 **Emergency Procedures.** This section was revised create a 'metric' to aid in the determination of when an issue rises to the level of concern appropriate to an emergency amendment. Furthermore, it now stipulates a process by which a proposed Emergency Amendment is reviewed by the ICC Codes and Standards Council who is responsible for the implementation and oversight of ICC's Code Development Process.

Section 3.3.1 & Section 6.4.1 **Proponent.** An e-mail address for each code change/public comment proponent will be published in the monograph, unless the proponent requests otherwise.

Section 3.3.5.3 & Section 6.4.5 **Substantiation.** ICC evaluates whether substantiating material is germane, but the amendment makes it clear that ICC does not in all circumstances evaluate substantiating material for quality or accuracy.

Section 3.3.5.6 **Cost Impact.** The proponent should submit information that supports their claim regarding cost impact. Any information submitted will be considered by the code development committee. This language is intended to emphasize the need to provide information on how the proposed change will affect the cost of construction.

Section 3.6.3.1 If a proposed new standard is not submitted in at least draft form, the corresponding code change proposal shall be considered incomplete and shall not be processed.

Section 4.5.1 **Standards referenced in the I-Codes.** The deadline for availability of updated referenced standards and receipt by the Secretariat is December 1st of the third year of each code cycle. For the 2012/2013 cycle, the deadline is December 1st, 2014.

Section 5.2.2 **Conflict of interest.** The original language, "Violation thereof shall result in the immediate removal of the committee member from the committee." was removed because there was no mechanism to enforce it. The recourse for someone who feels this section has been violated is to appeal.

Section 5.4.2 **Open meetings.** A provision has been added that stipulates that participants shall not advocate a position on specific code changes with Committee Members other than through the methods provided in this policy.

Section 5.4.3
&
Section 7.3.3 **Presentation of Material at the Public Hearing.** All participants are to make it clear what interests they are representing. This disclosure provides additional information upon which to evaluate the testimony.

Section 5.7 **Assembly consideration.** A successful assembly action will no longer be the initial motion at the Final Action Consideration.

Section 5.7.3 **Assembly action.** A successful assembly action shall be a majority vote of the votes cast by eligible voters, rather than a 2/3 majority (see below).

Section 5.7.4 **Eligible voters.** This section is revised to clarify that each member, including Governmental Member Voting Representatives, gets only one vote.

Section 7.4 **Eligible voters.** This section requires that all Governmental Membership applications must be received by April 1 of the year of the Final Actions for a Governmental Member to be eligible to vote at the Final Action Hearings.

ASSEMBLY ACTION

The procedures regarding assembly action at the Code Development Hearings have been revised (see Section 5.7 of CP #28 on page xix). Some important items to note regarding assembly action are:

- A successful assembly action now requires a simple majority rather than a 2/3 majority.
- After the committee decision on a code change proposal is announced by the moderator, any one in the assembly may make a motion for assembly action.
- After a motion for assembly action is made and seconded, the moderator calls for a floor vote in accordance with Section 5.7.2. *No additional testimony will be permitted.*
- A code change proposal that receives a successful assembly action will be placed on the Final Action Hearing Agenda for individual consideration.

MULTIPLE PART CODE CHANGE PROPOSALS

It is common for ICC to receive code change proposals for more than one code or more than 1 part of a code that is the responsibility of more than one committee. For instance, a code change proposal could be proposing related changes to the text of IBC Chapter 4 (IBC-General), IBC Chapter 7 (IBC-Fire Safety), and the IFC Chapter 27 (IFC). When this occurs, a single committee will now hear all of the parts, unless one of the parts is a change to the IRC, in which case the respective IRC committee will hear that part separately.

GROUP A AND GROUP B CODE CHANGES

Starting with this 2012/2013 Code Development Cycle, for the development of the 2015 Edition of the I-Codes, there are two groups of code development committees and they will meet in separate years. The groupings are as follows:

Group A Codes (Heard in 2012)	***Group B Codes (Heard in 2013)***
International Building Code Committees: *IBC-Fire Safety (Chapters: 7, 8, 9, 14, 26 and App. D)* *IBC-General (Chapters: 2-6, 12, 13, 27-34, App. A, B, C, F, H, K)* *IBC-Means of Egress (Chapters: 10, 11 and App. E)* *IBC-Structural (Chapters: 15-25 and App. G,I, J, L, M)*	*Administrative Provisions (Chapter 1 all codes except IRC and IECC, referenced standards administrative updates, and designated definitions)* *Administrative Code Committee*
International Fuel Gas Code *IFGC Committee*	*International Energy Conservation Code (see note 1)* *Commercial Energy Committee* *Residential Energy Committee*
International Mechanical Code *IMC Committee*	*International Existing Building Code* *IEBC Committee*
International Plumbing Code *IPC Committee*	*International Fire Code* *IFC Committee*
International Private Sewage Disposal Code *IPC Committee*	*International Green Construction Code Committees:* *IGCC—Energy/Water Committee (Chapters: 6 and 7)* *IGCC—General Committee (Chapters:2-5, 8-11 and Append)*
	International Performance Code (see note 2) *ICC Performance Code Committee*
	International Property Maintenance Code *IPMC/IZC Committee*
	International Wildland-Urban Interface Code *IFC Committee*
	International Zoning Code *IPMC/IZC Committee*
	International Residential Code Committees: *IRC-B (Chapters: 1-10 and App. E, F, G,H, J, K, L, M, O)* *IRC-M/P (Chapters: 12-33 and App. I, P)*
	International Swimming Pool and Spa Code *ISPSC Committee*

NOTE:

1. Residential Energy Committee is responsible for Chapter 11 of the IRC and the Residential Provisions of the IECC.
2. In anticipation of minimal code change activity, a ICC Performance Committee has not been appointed. Any changes will be considered by the IFC Committee.

GROUP A CODE DEVELOPMENT COMMITTEE RESPONSIBILITIES

Some sections of the International Codes have a letter designation in brackets in front of them. For instance, Section 301.1.4 of the IEBC has a [B] in front of it, meaning that this section is the responsibility of one of the IBC Code Development Committees (in this case, IBC-S).

Code change proposals submitted for such code sections that have a bracketed letter designation in front of them will be heard by the respective committee responsible for such code sections. Because different committees will meet in different years, some proposals for a given code will be heard by a committee in a different year than the year in which the primary committee for this code meets.

Note that there are several code change proposals in the IBC-Structural hearing order that are changes to the International Existing Building Code (marked with prefix "EB"). These are proposed changes to sections of the existing building code that are the responsibility of the IBC-Structural Code Development Committee.
A complete summary of the Group A and Group B Code Development Committees' responsibilities can be view at the ICC Website: http://www.iccsafe.org/cs/codes/Documents/2012-13cycle/GroupA-B_CDC-Responsibilities.pdf.

ANALYSIS STATEMENTS

Various proposed changes published herein contain an "analysis" that appears after the proponent's reason. These comments do not advocate action by the code committees or the voting membership for or against a proposal. The purpose of such comments is to identify pertinent information that is relevant to the consideration of the proposed change by all interested parties, including those testifying, the code committees and the voting membership. Staff analyses customarily identify such things as: conflicts and duplication within a proposed change and with other proposed changes and/or current code text; deficiencies in proposed text and/or substantiation; text problems such as wording defects and vagueness; background information on the development of current text; and staff's review of proposed reference standards for compliance with the Procedures. Lack of an analysis indicates neither support for, nor opposition to a proposal.

REFERENCE STANDARDS

Proposed changes that include the addition of a reference to a new standard (i.e. a standard that is not currently referenced in the I-Codes.) will include in the proposal the number, title and edition of the proposed standard. This identifies to all interested parties the precise document that is being proposed and which would be included in the referenced standards chapter of the code if the proposed change is approved. Section 3.6.3.1 of CP #28 now requires that a code change proposal will not be processed unless a consensus draft of the standard has been provided. Proponents of code changes which propose a new standard have been directed to forward copies of the standard to the Code Committee. An analysis statement will be posted on the ICC website providing information regarding standard content, such as enforceable language, references to proprietary products or services, and references to consensus procedure. The analysis statements for referenced standards will be posted on or before March 28th, 2012. This information will also be published and made available at the hearings.

REFERENCED STANDARDS UPDATES

Administrative updates of any standards already referenced in any of the I-Codes will be contained in a code change proposal for consideration by the Administrative Code Development Committee. The Administrative Code Development Committee is a Group B committee which will conduct hearings on the administrative provisions (Chapter 1 and certain definitions) of all I-Codes, and the referenced standards update. Therefore, this committee will conduct its code development hearing during the code development hearings in 2013.

It should be noted that, in accordance with Section 4.5.1 of CP #28 (see page xvi), standards promulgators will have until December 1, 2014 to finalize and publish any updates to standards in the administrative update. If the standard update is not finalized and published by December 1, 2014, the respective I-Codes will be revised to reference the previously listed year edition of the standard.

MODIFICATIONS

Those who are submitting a modification for consideration by the respective Code Development Committee are required to submit a Copyright Release in order to have their modifications considered (Section 3.3.4.5 of CP #28). It is preferred that such release be executed in advance – the form is at http://www.iccsafe.org/cs/codes/publicforms.htm. Copyright release forms will also be available at the hearings. Please note that an individual need only sign one copyright release for submittals of all code change proposals, modifications, and public comments in this code change cycle for which the individual might be responsible. **Please be sure to review Section 5.5.2 of CP #28 for the modification process.** The Chair of the respective code development committee rules a modification in or out of order. That ruling is final, with no challenge allowed. The proponent submitting a modification is required to supply 20 printed copies. The minimum font size must be 16 point.

Example:

Original code change proposal.

The original code change proposal requested the following change to Section 305.3 of one of our I-Codes: (Note that the example is fictional.)

G10-12
305.13

Proponent: John West representing self

Revise as follows:

305.3 Interior surfaces. All interior surfaces, including windows and doors, shall be maintained in good and clean condition. Peeling, chipping, flaking or abraded paint shall be repaired, removed or covered. Cracked or loose plaster~~,~~ ~~decayed wood~~ and other defective surface conditions shall be corrected. Surfaces of porous materials made of or containing organic materials, such as but not limited to wood, textiles, paint, cellulose insulation, and paper, including paper-faced gypsum board, that have visible signs of mold or mildew shall be removed and replaced or remediated in an approved manner.

Exception: Porous materials that do not contain organic materials, such as clean unpainted bricks and concrete.

Proposed modification:

A modification to the code change proposal is proposed:

1. To add “and sanitary” after “clean” in the first sentence.
2. To add “or water permeable” after “porous” in the third sentence.
3. Delete “in an approved manner.” in the last sentence.
4. Delete the proposed new exception.

The modification should read as follows. Note that the font style is Ariel, and the font size is 16 pt. The ~~cross out,~~ underline format is removed from the text of the original proposal and the requested revisions in the original proposal are made and shown as original text. The modification to the original proposal is shown with ~~cross out,~~ underline format applied to the changes proposed in the modification.

Example of proposed modification:

G10-12
305.13

Proponent: Sam Sumter representing self

Modify the proposal as follows:

305.3 Interior surfaces. All interior surfaces, including windows and doors, shall be maintained in good, ~~and~~ clean and sanitary condition. Peeling, chipping, flaking or abraded paint shall be repaired, removed or covered. Cracked or loose plaster and other defective surface conditions shall be corrected. Surfaces of porous or water permeable materials made of or containing organic materials, such as but not limited to wood, textiles, paint, cellulose insulation, and paper, including paper-faced gypsum board, that have visible signs of mold or mildew shall be removed and replaced or remediated ~~in an approved manner~~.

> ~~**Exception:** Porous materials that do not contain organic materials, such as clean unpainted bricks and concrete.~~

Note: *The modification should be able to be shown on the overhead screen on a single page. Only show the pertinent part of the code change proposal that shows the intended revisions. The entire code change proposal need not be shown.*

CODE CORRELATION COMMITTEE

In every code change cycle, there are code change proposals that are strictly editorial. The Code Correlation Committee approves all proposals deemed editorial. A list of code correlation committee actions are shown at the end of this document (CCC-1).

ICC WEBSITE – WWW.ICCSAFE.ORG

This document is posted on the ICC Website, www.iccsafe.org. While great care has been exercised in the publication of this document, errata to proposed changes may occur. Errata, if any, will be identified in updates posted prior to the Code Development Hearings on the ICC website at http://www.iccsafe.org. Users are encouraged to periodically review the ICC Website for updates to the 2012/2013 Code Development Cycle-Group A (2012) Proposed Changes. Additionally, analysis statements for code changes which propose a new referenced standard will be updated to reflect the staff review of the standard for compliance with Section 3.6 of the Procedures.

PROPONENT CONTACT INFORMATION

For most of the code change proposals, an e-mail address for the proponent has been provided.

2012/2013 ICC CODE DEVELOPMENT SCHEDULE

STEP IN CODE DEVELOPMENT CYCLE	DATE	
	2012 – Group A Codes IBC, IFGC, IMC, IPC, IPSDC (See Notes)	**2013 – Group B Codes Admin, ICCPC, IEBC, IECC, IFC, IgCC, IPMC, ISPSC, IRC, IWUIC, IZC (See Notes)**
2012 EDITION OF I-CODES PUBLISHED	April 30, 2011	
DEADLINE FOR RECEIPT OF APPLICATIONS FOR ALL CODE COMMITTEES	June 1, 2011 (updated to July 1 for IECC and IRC – Energy; August 1 for IgCC and ISPSC)	
DEADLINE FOR RECEIPT OF CODE CHANGE PROPOSALS	January 3, 2012	January 3, 2013
WEB POSTING OF "PROPOSED CHANGES TO THE I-CODES"	March 12, 2012	March 11, 2013
DISTRIBUTION DATE OF "PROPOSED CHANGES TO THE I-CODES" (CD only)	April 2, 2012	April 1, 2013
CODE DEVELOPMENT HEARING (CDH)	April 29 – May 6, 2012 Sheraton Dallas Hotel Dallas, TX	April 21 – 28, 2013 Sheraton Dallas Hotel Dallas, TX
WEB POSTING OF "REPORT OF THE PUBLIC HEARING"	June 8, 2012	May 31, 2013
DISTRIBUTION DATE OF "REPORT OF THE PUBLIC HEARING" (CD only)	June 29, 2012	June 21, 2013
DEADLINE FOR RECEIPT OF PUBLIC COMMENTS	August 1, 2012	July 15, 2013
WEB POSTING OF PUBLIC COMMENTS "FINAL ACTION AGENDA"	September 10, 2012	August 28, 2013
DISTRIBUTION DATE OF PUBLIC COMMENTS "FINAL ACTION AGENDA" (CD only)	October 1, 2012	September 16, 2013
FINAL ACTION HEARING (FAH)	October 24 – 28, 2012 Oregon Convention Center Portland, OR	October 2 – 9, 2013 Atlantic City Convention Center Atlantic City, NJ
ANNUAL CONFERENCES	October 21 – 24, 2012 Oregon Convention Center Portland, OR	September 29 – October 2, 2013 Atlantic City Convention Center Atlantic City, NJ

Notes:

- Be sure to review the "Group A and Group B Code Development Committee Responsibilities" posted at www.iccsafe.org/responsibilities which identifies committee responsibilities which are different than Group A and Group B codes which may impact the applicable code change cycle and resulting code change deadline.
- The International Green Construction Code (IgCC) and International Swimming Pool and Spa Code (ISPSC) to undergo a full cycle of code development in 2011 resulting in 2012 editions published in March/2012
- Group B "Admin" includes code change proposals submitted to Chapter 1 of all the I-Codes except the ICCPC, IECC and IRC and the administrative update of referenced standards in the 2012 I-Codes
- Start 2015/2016 Code Development Cycle with Group A code change proposals due January 5, 2015

2012/2013 STAFF SECRETARIES

GROUP A (2012)

IBC-Fire Safety Chapters 7, 8, 9, 14, 26	IBC-General Chapters 1-6, 12, 13, 27-34	IBC-Means of Egress Chapters 10, 11	IBC-Structural Chapters 15-25
Ed Wirtschoreck ICC Chicago District Office 1-888-ICC-SAFE, ext 4317 FAX: 708/799-0320 ewirtschoreck@iccsafe.org	BethTubbs ICC Northbridge Field Office 1-888-ICC-SAFE, ext 7708 FAX: 419/ 730-6531 btubbs@iccsafe.org	Kim Paarlberg ICC Indianapolis Field Office 1-888-ICC-SAFE, ext 4306 FAX: 708/799-0320 kpaarlberg@iccsafe.org	Alan Carr ICC NW Resource Center 1-888-ICC-SAFE, ext 7601 FAX: 425/637-8939 acarr@iccsafe.org
IFGC	**IMC**	**IPC/IPSDC**	
Gregg Gress ICC Chicago District Office 1-888-ICC-SAFE, ext 4343 FAX: 708/799-0320 ggress@iccsafe.org	Gregg Gress ICC Chicago District Office 1-888-ICC-SAFE, ext 4343 FAX: 708/799-0320 ggress@iccsafe.org	Fred Grable ICC Chicago District Office 1-888-ICC-SAFE, ext 4359 FAX: 708/799-0320 fgrable@iccsafe.org	

GROUP B (2013)

ADMINISTRATIVE Chapter 1 All Codes Except IRC	IEBC	IECC-Commercial	IECC-Residential
Kim Paarlberg ICC Indianapolis Field Office 1-888-ICC-SAFE, ext 4306 FAX: 708/799-0320 kpaarlberg@iccsafe.org	BethTubbs ICC Northbridge Field Office 1-888-ICC-SAFE, ext 7708 FAX: 419/ 730-6531 btubbs@iccsafe.org	Dave Bowman ICC Chicago District Office 1-888-ICC-SAFE, ext 4323 FAX: 708/799-0320 dbowman@iccsafe.org	Dave Bowman ICC Chicago District Office 1-888-ICC-SAFE, ext 4323 FAX: 708/799-0320 dbowman@iccsafe.org
IFC	**IgCC-General**	**IgCC-Energy/Water**	**ICC PC**
Bill Rehr/ Beth Tubbs ICC Chicago District Office 1-888-ICC-SAFE, ext 4342 FAX: 708/799-0320 brehr@iccsafe.org btubbs@iccsafe.org	Allan Bilka ICC Chicago District Office 1-888-ICC-SAFE, ext 4326 FAX: 708/799-0320 abilka@iccsafe.org	Fred Grable ICC Chicago District Office 1-888-ICC-SAFE, ext 4359 FAX: 708/799-0320 fgrable@iccsafe.org	BethTubbs ICC Northbridge Field Office 1-888-ICC-SAFE, ext 7708 FAX: 419/ 730-6531 btubbs@iccsafe.org
IPMC	**IRC-Building**	**IRC Mechanical**	**IRC Plumbing**
Ed Wirtschoreck ICC Chicago District Office 1-888-ICC-SAFE, ext 4317 FAX: 708/799-0320 ewirtschoreck@iccsafe.org	Larry Franks/ Dave Bowman ICC Birmingham District Office 1-888-ICC-SAFE, ext 5279 FAX: 205/592-7001 lfranks@iccsafe.org dbowman@iccsafe.org	Gregg Gress ICC Chicago District Office 1-888-ICC-SAFE, ext 4343 FAX: 708/799-0320 ggress@iccsafe.org	Fred Grable ICC Chicago District Office 1-888-ICC-SAFE, ext 4359 FAX: 708/799-0320 fgrable@iccsafe.org
ISPSC	**IWUIC**	**IZC**	
Fred Grable ICC Chicago District Office 1-888-ICC-SAFE, ext 4359 FAX: 708/799-0320 fgrable@iccsafe.org	Bill Rehr ICC Chicago District Office 1-888-ICC-SAFE, ext 4342 FAX: 708/799-0320 brehr@iccsafe.org	Ed Wirtschoreck ICC Chicago District Office 1-888-ICC-SAFE, ext 4317 FAX: 708/799-0320 ewirtschoreck@iccsafe.org	

COMMITTEE A
ASSIGNMENT CROSSOVER LIST—WITHIN THE IBC

The 2012/2013 Staff Secretaries assignments on page x indicate which chapters of the International Building Code are generally within the responsibility of each IBC Code Committee. However, within each of these IBC Chapters are subjects that are most appropriately maintained by another IBC Code Committee. For example, the provisions of Section 403.5 deal with means of egress from high-rise buildings. Therefore, even though Chapter 4 is within the responsibility of the IBC – General Committee, this section would most appropriately be maintained by the IBC – Means of Egress Committee. The following table indicates responsibilities by IBC Code Committees other than the main committee for those chapters, for code changes submitted for the 2012 portion (Group A) of the 2012/2013 Cycle.

SECTION	CHAPTER MAINTAINED BY	SECTION MAINTAINED BY	CODE CHANGE PROPOSALS
403.5	IBC-General	IBC-Means of Egress	E4, E7
405.7.1	IBC-General	IBC-Means of Egress	E3
411.7	IBC-General	IBC-Means of Egress	E3
1508.1	IBC-Structural	IBC-Fire Safety	FS178
3401.2	IBC-General	IBC-Structural	S90
3406.1.3	IBC-General	IBC-Means of Egress	E4
3406.4	IBC-General	IBC-Means of Egress	E4
3411.8.4	IBC-General	IBC-Means of Egress	E4
3411.8.15	IBC-General	IBC-Means of Egress	E211

CP# 28-05 CODE DEVELOPMENT

Approved: **9/24/05**
Revised: **10/29/11**

CP # 28-05 is an update to *ICC's Code Development Process for the International Codes* dated May 15, 2004.

1.0 Introduction

1.1 Purpose: The purpose of this Council Policy is to prescribe the Rules of Procedure utilized in the continued development and maintenance of the International Codes (Codes).

1.2 Objectives: The ICC Code Development Process has the following objectives:

1.2.1 The timely evaluation and recognition of technological developments pertaining to construction regulations.

1.2.2 The open discussion of proposals by all parties desiring to participate.

1.2.3 The final determination of Code text by public officials actively engaged in the administration, formulation or enforcement of laws, ordinances, rules or regulations relating to the public health, safety and welfare and by honorary members.

1.3 Code Publication: The ICC Board of Directors (ICC Board) shall determine the title and the general purpose and scope of each Code published by the ICC.

1.3.1 Code Correlation: The provisions of all Codes shall be consistent with one another so that conflicts between the Codes do not occur. Where a given subject matter or code text could appear in more than one Code, the ICC Board shall determine which Code shall be the primary document, and therefore which code development committee shall be responsible for review and maintenance of the code text. Duplication of content or text between Codes shall be limited to the minimum extent necessary for practical usability of the Codes, as determined in accordance with Section 4.4.

1.4 Process Maintenance: The review and maintenance of the Code Development Process and these Rules of Procedure shall be by the ICC Board. The manner in which ICC codes are developed embodies core principles of the organization. One of those principles is that the final content of ICC codes is determined by a majority vote of the governmental and honorary members. It is the policy of the Board that there shall be no change to this principle without the affirmation of two-thirds of the governmental and honorary members responding.

1.5 Secretariat: The Chief Executive Officer shall assign a Secretariat for each of the Codes. All correspondence relating to code change proposals and public comments shall be addressed to the Secretariat.

1.6 Recording: Individuals requesting permission to record any meeting or hearing, or portion thereof, shall be required to provide the ICC with a release of responsibility disclaimer and shall acknowledge that ICC shall retain sole ownership of the recording, and that they have insurance coverage for liability and misuse of recording materials. Equipment and the process used to record shall, in the judgment of the ICC Secretariat, be conducted in a manner that is not disruptive to the meeting. The ICC shall not be responsible for equipment, personnel or any other provision necessary to accomplish the recording. An unedited copy of the recording shall be forwarded to ICC within 30 days of the meeting. Recordings shall not otherwise be copied, reproduced or distributed in any manner. Recordings shall be returned to

ICC or destroyed upon the request of ICC.

2.0 Code Development Cycle

2.1 Intent: The code development cycle shall consist of the complete consideration of code change proposals in accordance with the procedures herein specified, commencing with the deadline for submission of code change proposals (see Section 3.5) and ending with publication of final action on the code change proposals (see Section 7.6).

2.2 New Editions: The ICC Board shall determine the schedule for publishing new editions of the Codes. Each new edition shall incorporate the results of the code development activity since the last edition.

2.3 Supplements: The results of code development activity between editions may be published.

2.4 Emergency Procedures:

2.4.1 Scope: Emergency actions are limited to those issues representing an immediate threat to health and safety that warrant a more timely response than allowed by the Code Development Process schedule.

2.4.2 Initial Request: A request for an emergency action shall be based upon perceived threats to health and safety and shall be reviewed by the ICC Codes and Standards Council for referral to the Board of Directors for action with their analysis and recommendation.

2.4.3 Board and Member Action: In the event that the ICC Board determines that an emergency amendment to any Code is warranted, the same may be adopted by the ICC Board. Such action shall require an affirmative vote of at least two-thirds of the ICC Board.

The ICC membership shall be notified within ten days after the ICC Boards' official action of any emergency amendment. At the next Annual Business Meeting, any emergency amendment shall be presented to the members for ratification by a majority of the ICC Governmental Member Representatives and Honorary Members present and voting.

All code revisions pursuant to these emergency procedures and the reasons for such corrective action shall be published as soon as practicable after ICC Board action. Such revisions shall be identified as an emergency amendment.

Emergency amendments to any Code shall not be considered as a retro-active requirement to the Code. Incorporation of the emergency amendment into the adopted Code shall be subjected to the process established by the adopting authority.

3.0 Submittal of Code Change Proposals

3.1 Intent: Any interested person, persons or group may submit a code change proposal which will be duly considered when in conformance to these Rules of Procedure.

3.2 Withdrawal of Proposal: A code change proposal may be withdrawn by the proponent (WP) at any time prior to Final Action Consideration of that proposal. A withdrawn code change proposal shall not be subject to a public hearing, motions, or Final Action Consideration.

3.3 Form and Content of Code Change Submittals: Each code change proposal shall be submitted separately and shall be complete in itself. Each submittal shall contain the following information:

3.3.1 Proponent: Each code change proposal shall include the name, title, mailing address, telephone number, and email address of the proponent. Email addresses shall be published with the code change proposals unless the proponent otherwise requests on the submittal form.

3.3.1.1 If a group, organization or committee submits a code change proposal, an individual with prime responsibility shall be indicated.

3.3.1.2 If a proponent submits a code change on behalf of a client, group, organization or committee, the name and mailing address of the client, group, organization or committee shall be indicated.

3.3.2 Code Reference: Each code change proposal shall relate to the applicable code sections(s) in the latest edition of the Code.

3.3.2.1 If more than one section in the Code is affected by a code change proposal, appropriate proposals shall be included for all such affected sections.

3.3.2.2 If more than one Code is affected by a code change proposal, appropriate proposals shall be included for all such affected Codes and appropriate cross referencing shall be included in the supporting information.

3.3.3 Multiple code change proposals to a code section. A proponent shall not submit multiple code change proposals to the same code section. When a proponent submits multiple code change proposals to the same section, the proposals shall be considered as incomplete proposals and processed in accordance with Section 4.3. This restriction shall not apply to code change proposals that attempt to address differing subject matter within a code section.

3.3.4 Text Presentation: The text proposal shall be presented in the specific wording desired with deletions shown struck out with a single line and additions shown underlined with a single line.

3.3.4.1 A charging statement shall indicate the referenced code section(s) and whether the proposal is intended to be an addition, a deletion or a revision to existing Code text.

3.3.4.2 Whenever practical, the existing wording of the text shall be preserved with only such deletions and additions as necessary to accomplish the desired change.

3.3.4.3 Each proposal shall be in proper code format and terminology.

3.3.4.4 Each proposal shall be complete and specific in the text to eliminate unnecessary confusion or misinterpretation.

3.3.4.5 The proposed text shall be in mandatory terms.

3.3.5 Supporting Information: Each code change proposal shall include sufficient supporting information to indicate how the proposal is intended to affect the intent and application of the Code.

3.3.5.1 Purpose: The proponent shall clearly state the purpose of the proposed code change (e.g. clarify the Code; revise outdated material; substitute new or revised material for current provisions of the Code; add new requirements to the Code; delete current requirements, etc.)

3.3.5.2 Reasons: The proponent shall justify changing the current Code provisions, stating why the proposal is superior to the current provisions of the Code. Proposals which 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.

3.3.5.3 Substantiation: The proponent shall substantiate the proposed code change based on technical information and substantiation. Substantiation provided which is reviewed in accordance with Section 4.2 and determined as not germane to the technical issues addressed in the proposed code change may be identified as such. The proponent shall be notified that the proposal is considered an incomplete proposal in accordance with Section 4.3 and the proposal shall be held until the deficiencies are corrected. The proponent shall have the right to appeal this action in accordance with the policy of the ICC Board. The burden of providing substantiating material lies with the proponent of the code change proposal. All substantiating material published by ICC is material that has been provided by the proponent and in so publishing ICC makes no representations or warranties about its quality or accuracy.

3.3.5.4 Bibliography: The proponent shall submit a bibliography of any substantiating material submitted with the code change proposal. The bibliography shall be published with the code change and the proponent shall make the substantiating materials available for review at the appropriate ICC office and during the public

hearing.

3.3.5.5 Copyright Release: The proponent of code change proposals, floor modifications and public comments shall sign a copyright release reading: "I hereby grant and assign to ICC all rights in copyright I may have in any authorship contributions I make to ICC in connection with any proposal and public comment, in its original form submitted or revised form, including written and verbal modifications submitted in accordance Section 5.5.2. I understand that I will have no rights in any ICC publications that use such contributions in the form submitted by me or another similar form and certify that such contributions are not protected by the copyright of any other person or entity."

3.3.5.6 Cost Impact: The proponent shall indicate one of the following regarding the cost impact of the code change proposal: 1) the code change proposal will increase the cost of construction; or 2) the code change proposal will not increase the cost of construction. The proponent should submit information that supports their claim. Any information submitted will be considered by the code development committee. This information will be included in the bibliography of the published code change proposal.

3.4 Number: One copy of each code change proposal, two copies of each proposed new referenced standard and one copy of all substantiating information shall be submitted. Additional copies may be requested when determined necessary by the Secretariat to allow such information to be distributed to the code development committee. Where such additional copies are requested, it shall be the responsibility of the proponent to send such copies to the respective code development committee. A copy of the code change proposal in electronic form is preferred.

3.5 Submittal Deadline: Each code change proposal shall be received at the office of the Secretariat by the posted deadline. Such posting shall occur no later than 120 days prior to the code change deadline. The submitter of a proposed code change is responsible for the proper and timely receipt of all pertinent materials by the Secretariat.

3.6 Referenced Standards: In order for a standard to be considered for reference or to continue to be referenced by the Codes, a standard shall meet the following criteria:

3.6.1 Code References:

3.6.1.1 The standard, including title and date, and the manner in which it is to be utilized shall be specifically referenced in the Code text.

3.6.1.2 The need for the standard to be referenced shall be established.

3.6.2 Standard Content:

3.6.2.1 A standard or portions of a standard intended to be enforced shall be written in mandatory language.

3.6.2.2 The standard shall be appropriate for the subject covered.

3.6.2.3 All terms shall be defined when they deviate from an ordinarily accepted meaning or a dictionary definition.

3.6.2.4 The scope or application of a standard shall be clearly described.

3.6.2.5 The standard shall not have the effect of requiring proprietary materials.

3.6.2.6 The standard shall not prescribe a proprietary agency for quality control or testing.

3.6.2.7 The test standard shall describe, in detail, preparation of the test sample, sample selection or both.

3.6.2.8 The test standard shall prescribe the reporting format for the test results. The format shall identify the key performance criteria for the element(s) tested.

3.6.2.9 The measure of performance for which the test is conducted shall be clearly defined in either the test standard or in Code text.

3.6.2.10 The standard shall not state that its provisions shall govern whenever the referenced standard is in conflict with the requirements of the referencing Code.

3.6.2.11 The preface to the standard shall announce that the standard is promulgated according to a consensus procedure.

3.6.3 Standard Promulgation:

3.6.3.1 Code change proposals with corresponding changes to the code text which include a reference to a proposed new standard or a proposed update of an existing referenced shall comply with this section. The standard shall be completed and readily available prior to Final Action Consideration based on the cycle of code development which includes the proposed code change proposal. In order for a new standard to be considered for reference by the Code, such standard shall be submitted in at least a consensus draft form in accordance with Section 3.4. If a new standard is not submitted in at least draft form, the code change shall be considered incomplete and shall not be processed. Updating of standards without corresponding code text changes shall be accomplished administratively in accordance with Section 4.5.

3.6.3.2 The standard shall be developed and maintained through a consensus process such as ASTM or ANSI.

4.0 Processing of Proposals

4.1 Intent: The processing of code change proposals is intended to ensure that each proposal complies with these Rules of Procedure and that the resulting published proposal accurately reflects that proponent's intent.

4.2 Review: Upon receipt in the Secretariat's office, the code change proposals will be checked for compliance with these Rules of Procedure as to division, separation, number of copies, form, language, terminology, supporting statements and substantiating data. Where a code change proposal consists of multiple parts which fall under the maintenance responsibilities of different code committees, the Secretariat shall determine the code committee responsible for determining the committee action in accordance with Section 5.6.

4.3 Incomplete Proposals: When a code change proposal is submitted with incorrect format, without the required information or judged as not in compliance with these Rules of Procedure, the Secretariat shall notify the proponent of the specific deficiencies and the proposal shall be held until the deficiencies are corrected, with a final date set for receipt of a corrected submittal. If the Secretariat receives the corrected proposal after the final date, the proposal shall be held over until the next code development cycle. Where there are otherwise no deficiencies addressed by this section, a proposal that incorporates a new referenced standard shall be processed with an analysis of referenced standard's compliance with the criteria set forth in Section 3.6.

4.4 Editorial: The Chief Executive Officer shall have the authority at all times to make editorial and format changes to the Code text, or any approved changes, consistent with the intent, provisions and style of the Code. An editorial or format change is a text change that does not affect the scope or application of the code requirements.

4.5 Updating Standards:

4.5.1 Standards referenced in the I-Codes: The updating of standards referenced by the Codes shall be accomplished administratively by the Administrative code development committee in accordance with these full procedures except that the deadline for availability of the updated standard and receipt by the Secretariat shall be December 1 of the third year of each code cycle. The published version of the new edition of the Code which references the standard will refer to the updated edition of the standard. If the standard is not available by the deadline, the edition of the standard as referenced by the newly published Code shall revert back to the reference contained in the previous edition and an errata to the Code issued Multiple standards to be updated may be included in a single proposal.

4.6 Preparation: All code change proposals in compliance with these procedures shall be prepared in a standard manner by the Secretariat and be assigned separate, distinct and consecutive numbers. The Secretariat shall coordinate related proposals submitted in accordance with Section 3.3.2 to facilitate the hearing process.

4.7 Publication: All code change proposals shall be posted on the ICC website at least 30 days prior to the public hearing on those proposals and shall constitute the agenda for the public hearing. Code

change proposals which have not been published shall not be considered.

5.0 Public Hearing

5.1 Intent: The intent of the public hearing is to permit interested parties to present their views including the cost and benefits on the code change proposals on the published agenda. The code development committee will consider such comments as may be presented in the development of their action on the disposition of such proposals. At the conclusion of the code development committee deliberations, the committee action on each code change proposal shall be placed before the hearing assembly for consideration in accordance with Section 5.7.

5.2 Committee: The Code Development Committees shall be appointed by the Board of Directors.

5.2.1 Chairman/Moderator: The Chairman and Vice-Chairman shall be appointed by the Steering Committee on Councils from the appointed members of the committee. The ICC President shall appoint one or more Moderators who shall act as presiding officer for the public hearing.

5.2.2 Conflict of Interest: A committee member shall withdraw from and take no part in those matters with which the committee member has an undisclosed financial, business or property interest. The committee member shall not participate in any committee discussion on the matter or any committee vote. A committee member who is a proponent of a proposal shall not participate in any committee discussion on the matter or any committee vote. Such committee member shall be permitted to participate in the floor discussion in accordance with Section 5.5 by stepping down from the dais.

5.2.3 Representation of Interest: Committee members shall not represent themselves as official or unofficial representatives of the ICC except at regularly convened meetings of the committee.

5.2.4 Committee Composition: The committee may consist of representation from multiple interests. A minimum of thirty-three and one-third percent (33.3%) of the committee members shall be regulators.

5.3 Date and Location: The date and location of each public hearing shall be announced not less than 60 days prior to the date of the public hearing.

5.4 General Procedures: *The Robert's Rules of Order* shall be the formal procedure for the conduct of the public hearing except as a specific provision of these Rules of Procedure may otherwise dictate. A quorum shall consist of a majority of the voting members of the committee.

5.4.1 Chair Voting: The Chairman of the committee shall vote only when the vote cast will break a tie vote of the committee.

5.4.2 Open Meetings: Public hearings of the Code Development Committees are open meetings. Any interested person may attend and participate in the Floor Discussion and Assembly Consideration portions of the hearing. Only eligible voters (see Section 5.7.4) are permitted to vote on Assembly Considerations. Only Code Development Committee members may participate in the Committee Action portion of the hearings (see Section 5.6). Participants shall not advocate a position on specific code changes with Committee Members other than through the methods provided in this policy.

5.4.3 Presentation of Material at the Public Hearing: Information to be provided at the hearing shall be limited to verbal presentations and modifications submitted in accordance with Section 5.5.2. Each individual presenting information at the hearing shall state their name and affiliation, and shall identify any entities or individuals they are representing in connection with their testimony. Audio-visual presentations are not permitted. Substantiating material submitted in accordance with Section 3.3.4.4 and other material submitted in response to a code change proposal shall be located in a designated area in the hearing room and shall not be distributed to the code development committee at the public hearing.

5.4.4 Agenda Order: The Secretariat shall publish an agenda for each public hearing, placing individual code change proposals in a logical order to facilitate the hearing. Any public hearing attendee may move to revise the agenda order as the first order of business at the public

hearing, or at any time during the hearing except while another proposal is being discussed. Preference shall be given to grouping like subjects together, and for moving items back to a later position on the agenda as opposed to moving items forward to an earlier position. A motion to revise the agenda order is subject to a 2/3 vote of those present and voting.

5.4.5 Reconsideration: There shall be no reconsideration of a proposed code change after it has been voted on by the committee in accordance with Section 5.6; or, in the case of assembly consideration, there shall be no reconsideration of a proposed code change after it has been voted on by the assembly in accordance with Section 5.7.

5.4.6 Time Limits: Time limits shall be established as part of the agenda for testimony on all proposed changes at the beginning of each hearing session. Each person requesting to testify on a change shall be given equal time. In the interest of time and fairness to all hearing participants, the Moderator shall have limited authority to modify time limitations on debate. The Moderator shall have the authority to adjust time limits as necessary in order to complete the hearing agenda.

5.4.6.1 Time Keeping: Keeping of time for testimony by an individual shall be by an automatic timing device. Remaining time shall be evident to the person testifying. Interruptions during testimony shall not be tolerated. The Moderator shall maintain appropriate decorum during all testimony.

5.4.6.2 Proponent Testimony: The Proponent is permitted to waive an initial statement. The Proponent shall be permitted to have the amount of time that would have been allocated during the initial testimony period plus the amount of time that would be allocated for rebuttal. Where the code change proposal is submitted by multiple proponents, this provision shall permit only one proponent of the joint submittal to be allotted additional time for rebuttal.

5.4.7 Points of Order: Any person participating in the public hearing may challenge a procedural ruling of the Moderator or the Chairman. A majority vote of the eligible voters as determined in Section 5.7.4 shall determine the decision.

5.5 Floor Discussion: The Moderator shall place each code change proposal before the hearing for discussion by identifying the proposal and by regulating discussion as follows:

5.5.1 Discussion Order:

1. *Proponents.* The Moderator shall begin by asking the proponent and then others in support of the proposal for their comments.
2. *Opponents.* After discussion by those in support of a proposal, those opposed hereto, if any, shall have the opportunity to present their views.
3. *Rebuttal in support.* Proponents shall then have the opportunity to rebut points raised by the opponents.
4. *Re-rebuttal in opposition.* Opponents shall then have the opportunity to respond to the proponent's rebuttal.

5.5.2 Modifications: Modifications to proposals may be suggested from the floor by any person participating in the public hearing. The person proposing the modification is deemed to be the proponent of the modification.

5.5.2.1 Submission and Written Copies. All modifications must be written, unless determined by the Chairman to be either editorial or minor in nature. The modification proponent shall provide 20 copies to the Secretariat for distribution to the committee.

5.5.2.2 Criteria. The Chairman shall rule proposed modifications in or out of order before they are discussed on the floor. A proposed modification shall be ruled out of order if it:

1. is not legible, unless not required to be written in accordance with Section 5.5.2.1; or

2. changes the scope of the original proposal; or
3. is not readily understood to allow a proper assessment of its impact on the original proposal or the code.

The ruling of the Chairman on whether or not the modification is in or out of order shall be final and is not subject to a point of order in accordance with Section 5.4.7.

5.5.2.3 Testimony. When a modification is offered from the floor and ruled in order by the Chairman, a specific floor discussion on that modification is to commence in accordance with the procedures listed in Section 5.5.1.

5.6 Committee Action: Following the floor discussion of each code change proposal, one of the following motions shall be made and seconded by members of the committee.

1. Approve the code change proposal as submitted (AS) or
2. Approve the code change proposal as modified with specific modifications (AM), or
3. Disapprove the code change proposal (D)

Discussion on this motion shall be limited to Code Development Committee members. If a committee member proposes a modification which had not been proposed during floor discussion, the Chairman shall rule on the modification in accordance with Section 5.5.2.2 If a committee member raises a matter of issue, including a proposed modification, which has not been proposed or discussed during the floor discussion, the Moderator shall suspend the committee discussion and shall reopen the floor discussion for comments on the specific matter or issue. Upon receipt of all comments from the floor, the Moderator shall resume committee discussion.

The Code Development Committee shall vote on each motion with the majority dictating the committee's action. Committee action on each code change proposal shall be completed when one of the motions noted above has been approved. Each committee vote shall be supported by a reason.

The Code Development Committee shall maintain a record of its proceedings including the action on each code change proposal.

5.7 Assembly Consideration: At the conclusion of the committee's action on a code change proposal and before the next code change proposal is called to the floor, the Moderator shall ask for a motion from the public hearing attendees who may object to the committee's action. If a motion in accordance with Section 5.7.1 is not brought forward on the committee's action, the results of the public hearing shall be established by the committee's action. If a motion in accordance with Section 5.7.1 is brought forward and is sustained in accordance with Section 5.7.3, both the committee's action and the assemblies' action shall be reported as the results of the public hearing.

5.7.1 Floor Motion: Any attendee may raise an objection to the committee's action in which case the attendee will be able to make a motion to:

1. Approve the code change proposal as submitted from the floor (ASF), or
2. Approve the code change proposal as modified from the floor (AMF) with a specific modification that has been previously offered from the floor and ruled in order by the Chairman during floor discussion (see Section 5.5.2) or has been offered by a member of the Committee and ruled in order by the Chairman during committee discussion (see Section 5.6), or
3. Disapprove the code change proposal from the floor (DF).

5.7.2 Discussion: On receipt of a second to the floor motion, the Moderator shall place the motion before the assembly for a vote. No additional testimony shall be permitted.

5.7.3 Assembly Action: A successful assembly action shall be a majority vote of the votes cast by eligible voters (See 5.7.4).

5.7.4 Eligible Voters: All members of ICC in attendance at the public hearing shall be eligible to vote on floor motions. Each member is entitled to one vote, except that each Governmental Member Voting Representative in attendance may vote on behalf of its Governmental Member. Code Development Committee members shall be eligible to vote on floor motions. Application, whether

new or updated, for ICC membership must be received by the Code Council ten days prior to the commencement of the first day of the public hearing.

5.8 Report of the Public Hearing: The results of the public hearing, including committee action and successful assembly action, shall be posted on the ICC website not less than 60 days prior to Final Action Consideration except as approved by the ICC Board.

6.0 Public Comments

6.1 Intent: The public comment process gives attendees at the Final Action Hearing an opportunity to consider specific objections to the results of the public hearing and more thoughtfully prepare for the discussion for Final Action Consideration. The public comment process expedites the Final Action Consideration at the Final Action Hearing by limiting the items discussed to the following:

6.1.1 Consideration of items for which a public comment has been submitted; and

6.1.2 Consideration of items which received a successful assembly action at the public hearing.

6.2 Deadline: The deadline for receipt of a public comment to the results of the public hearing shall be announced at the public hearing but shall not be less than 30 days from the availability of the report of the results of the public hearing (see Section 5.8).

6.3 Withdrawal of Public Comment: A public comment may be withdrawn by the public commenter at any time prior to Final Action Consideration of that comment. A withdrawn public comment shall not be subject to Final Action Consideration. If the only public comment to a code change proposal is withdrawn by the public commenter prior to the vote on the consent agenda in accordance with Section 7.3.4, the proposal shall be considered as part of the consent agenda. If the only public comment to a code change proposal is withdrawn by the public commenter after the vote on the consent agenda in accordance with Section 7.3.4, the proposal shall continue as part of the individual consent agenda in accordance with Section 7.3.5, however the public comment shall not be subject to Final Action Consideration.

6.4 Form and Content of Public Comments: Any interested person, persons, or group may submit a public comment to the results of the public hearing which will be considered when in conformance to these requirements. Each public comment to a code change proposal shall be submitted separately and shall be complete in itself. Each public comment shall contain the following information:

6.4.1 Public comment: Each public comment shall include the name, title, mailing address, telephone number and email address of the public commenter. Email addresses shall be published with the public comments unless the commenter otherwise requests on submittal form. If group, organization, or committee submits a public comment, an individual with prime responsibility shall be indicated. If a public comment is submitted on behalf a client, group, organization or committee, the name and mailing address of the client, group, organization or committee shall be indicated. The scope of the public comment shall be consistent with the scope of the original code change proposal, committee action or successful assembly action. Public comments which are determined as not within the scope of the code change proposal, committee action or successful assembly action shall be identified as such. The public commenter shall be notified that the public comment is considered an incomplete public comment in accordance with Section 6.5.1 and the public comment shall be held until the deficiencies are corrected. A copyright release in accordance with Section 3.3.4.5 shall be provided with the public comment.

6.4.2 Code Reference: Each public comment shall include the code change proposal number and the results of the public hearing, including successful assembly actions, on the code change proposal to which the public comment is directed.

6.4.3 Multiple public comments to a code change proposal. A proponent shall not submit multiple public comments to the same code change proposal. When a proponent submits multiple public comments to the same code change proposal, the public comments shall be considered as incomplete public comments and processed in accordance with Section 6.5.1. This restriction shall not apply to public comments that attempt to address differing subject matter within a code section.

6.4.4 Desired Final Action: The public comment shall indicate the desired final action as one of the following:

1. Approve the code change proposal as submitted (AS), or
2. Approve the code change proposal as modified (AM) by one or more specific modifications published in the Results of the Public Hearing or published in a public comment, or
3. Disapprove the code change proposal (D)

6.4.5 Supporting Information: The public comment shall include in a statement containing a reason and justification for the desired final action on the code change proposal. Reasons and justification which are reviewed in accordance with Section 6.4 and determined as not germane to the technical issues addressed in the code change proposal or committee action may be identified as such. The public commenter shall be notified that the public comment is considered an incomplete public comment in accordance with Section 6.5.1 and the public comment shall be held until the deficiencies are corrected. The public commenter shall have the right to appeal this action in accordance with the policy of the ICC Board. A bibliography of any substantiating material submitted with a public comment shall be published with the public comment and the substantiating material shall be made available at the Final Action Hearing. All substantiating material published by ICC is material that has been provided by the proponent and in so publishing ICC makes no representations or warranties about its quality or accuracy.

6.4.6 Number: One copy of each public comment and one copy of all substantiating information shall be submitted. Additional copies may be requested when determined necessary by the Secretariat. A copy of the public comment in electronic form is preferred.

6.5 Review: The Secretariat shall be responsible for reviewing all submitted public comments from an editorial and technical viewpoint similar to the review of code change proposals (See Section 4.2).

6.5.1 Incomplete Public Comment: When a public comment is submitted with incorrect format, without the required information or judged as not in compliance with these Rules of Procedure, the public comment shall not be processed. The Secretariat shall notify the public commenter of the specific deficiencies and the public comment shall be held until the deficiencies are corrected, or the public comment shall be returned to the public commenter with instructions to correct the deficiencies with a final date set for receipt of the corrected public comment.

6.5.2 Duplications: On receipt of duplicate or parallel public comments, the Secretariat may consolidate such public comments for Final Action Consideration. Each public commenter shall be notified of this action when it occurs.

6.5.3 Deadline: Public comments received by the Secretariat after the deadline set for receipt shall not be published and shall not be considered as part of the Final Action Consideration.

6.6 Publication: The public hearing results on code change proposals that have not been public commented and the code change proposals with public commented public hearing results and successful assembly actions shall constitute the Final Action Agenda. The Final Action Agenda shall be posted on the ICC website at least 30 days prior to Final Action consideration.

7.0 Final Action Consideration

7.1 Intent: The purpose of Final Action Consideration is to make a final determination of all code change proposals which have been considered in a code development cycle by a vote cast by eligible voters (see Section 7.4).

7.2 Agenda: The final action consent agenda shall be comprised of proposals which have neither an assembly action nor public comment. The agenda for public testimony and individual consideration shall be comprised of proposals which have a successful assembly action or public comment (see Sections 5.7 and 6.0).

7.3 Procedure: *The Robert's Rules of Order* shall be the formal procedure for the conduct of the Final Action Consideration except as these Rules of Procedure may otherwise dictate.

7.3.1 Open Meetings: Public hearings for Final Action Consideration are open meetings. Any

interested person may attend and participate in the Floor Discussion.

7.3.2 Agenda Order: The Secretariat shall publish an agenda for Final Action Consideration, placing individual code change proposals and public comments in a logical order to facilitate the hearing. The proponents or opponents of any proposal or public comment may move to revise the agenda order as the first order of business at the public hearing, or at any time during the hearing except while another proposal is being discussed. Preference shall be given to grouping like subjects together and for moving items back to a later position on the agenda as opposed to moving items forward to an earlier position. A motion to revise the agenda order is subject to a 2/3 vote of those present and voting.

7.3.3 Presentation of Material at the Public Hearing: Information to be provided at the hearing shall be limited to verbal presentations. Each individual presenting information at the hearing shall state their name and affiliation, and shall identify any entities or individuals they are representing in connection with their testimony. Audio-visual presentations are not permitted. Substantiating material submitted in accordance with Section 6.4.4 and other material submitted in response to a code change proposal or public comment shall be located in a designated area in the hearing room.

7.3.4 Final Action Consent Agenda: The final action consent agenda (see Section 7.2) shall be placed before the assembly with a single motion for final action in accordance with the results of the public hearing. When the motion has been seconded, the vote shall be taken with no testimony being allowed. A simple majority (50% plus one) based on the number of votes cast by eligible voters shall decide the motion.

7.3.5 Individual Consideration Agenda: Upon completion of the final action consent vote, all proposed changes not on the final action consent agenda shall be placed before the assembly for individual consideration of each item (see Section 7.2).

7.3.6 Reconsideration: There shall be no reconsideration of a proposed code change after it has been voted on in accordance with Section 7.3.8.

7.3.7 Time Limits: Time limits shall be established as part of the agenda for testimony on all proposed changes at the beginning of each hearing session. Each person requesting to testify on a change shall be given equal time. In the interest of time and fairness to all hearing participants, the Moderator shall have limited authority to modify time limitations on debate. The Moderator shall have the authority to adjust time limits as necessary in order to complete the hearing agenda.

7.3.7.1 Time Keeping: Keeping of time for testimony by an individual shall be by an automatic timing device. Remaining time shall be evident to the person testifying. Interruptions during testimony shall not be tolerated. The Moderator shall maintain appropriate decorum during all testimony.

7.3.8 Discussion and Voting: Discussion and voting on proposals being individually considered shall be in accordance with the following procedures:

7.3.8.1 Allowable Final Action Motions: The only allowable motions for final action are Approval as Submitted, Approval as Modified by one or more modifications published in the Final Action Agenda, and Disapproval.

7.3.8.2 Initial Motion: The Code Development Committee action shall be the initial motion considered.

7.3.8.3 Motions for Modifications: Whenever a motion under consideration is for Approval as Submitted or Approval as Modified, a subsequent motion and second for a modification published in the Final Action Agenda may be made (see Section 6.4.3). Each subsequent motion for modification, if any, shall be individually discussed and voted before returning to the main motion. A two-thirds majority based on the number of votes cast by eligible voters shall be required for a successful motion on all modifications.

7.3.8.4 Voting: After dispensing with all motions for modifications, if any, and upon

completion of discussion on the main motion, the Moderator shall then ask for the vote on the main motion. If the motion fails to receive the majority required in Section 7.5, the Moderator shall ask for a new motion.

7.3.8.5 Subsequent Motion: If the initial motion is unsuccessful, a motion for one of the other allowable final actions shall be made (see Section 7.3.8.1) and dispensed with until a successful final action is achieved. If a successful final action is not achieved, Section 7.5.1 shall apply.

7.3.9 Proponent testimony: The Proponent of a public comment is permitted to waive an initial statement. The Proponent of the public comment shall be permitted to have the amount of time that would have been allocated during the initial testimony period plus the amount of time that would be allocated for rebuttal. Where a public comment is submitted by multiple proponents, this provision shall permit only one proponent of the joint submittal to waive an initial statement.

7.3.10 Points of Order: Any person participating in the public hearing may challenge a procedural ruling of the Moderator. A majority vote of the eligible voters as determined in Section 5.7.4 shall determine the decision.

7.4 Eligible voters: ICC Governmental Member Representatives and Honorary Members in attendance at the Final Action Hearing shall have one vote per eligible attendee on all International Codes. Applications for Governmental Membership must be received by the ICC by April 1st of the applicable year in order for its designated representatives to be eligible to vote at the Final Action Hearing. Applications, whether new or updated, for governmental member voting representative status must be received by the Code Council thirty (30) days prior to the commencement of the first day of the Final Action Hearing in order for any designated representative to be eligible to vote. An individual designated as a Governmental Member Voting Representative shall provide sufficient information to establish eligibility as defined in the ICC Bylaws. The Executive Committee of the ICC Board, in its discretion, shall have the authority to address questions related to eligibility. Decisions of the Executive Committee shall be final and not appealable pursuant to CP 1, other than claims of fraud or misrepresentation, supported by reasonably credible evidence, that were material to the outcome of the Final Action Hearing.

7.5 Majorities for Final Action: The required voting majority based on the number of votes cast of eligible voters shall be in accordance with the following table:

Committee Action (see note)	**Desired Final Action**		
	AS	**AM**	**D**
AS	Simple Majority	2/3 Majority	Simple Majority
AM	2/3 Majority	Simple Majority to sustain the Public Hearing Action or; 2/3 Majority on additional modifications and 2/3 on overall AM	Simple Majority
D	2/3 Majority	2/3 Majority	Simple Majority

7.5.1 Failure to Achieve Majority Vote: In the event that a code change proposal does not receive any of the required majorities for final action in Section 7.5, final action on the code change proposal in question shall be disapproval.

7.6 Publication: The Final action on all proposed code changes shall be published as soon as practicable after the determination of final action. The exact wording of any resulting text modifications shall be made available to any interested party.

8.0 Appeals

8.1 Right to Appeal: Any person may appeal an action or inaction in accordance with CP-1.

2012 ICC CODE DEVELOPMENT CYCLE
CROSS INDEX OF PROPOSED CODE CHANGES

Some of the proposed code changes include sections that are outside of the scope of the chapters or the code listed in the table of 2012/2013 Staff Secretaries on page x. This is done in order to facilitate coordination among the International Codes which is one of the fundamental principles of the International Codes.

Listed in this cross index are proposed code changes that include sections of codes or codes other than those listed on page ix. For example, IBC Section 703.2.3 is proposed for revision in code change S70-12, which is to be heard by the IBC Structural Committee. This section of the IBC is typically the responsibility of the IBC Fire Safety Committee as listed in the table of 2012/2013 Staff Secretaries. It is therefore identified in this cross index. Another example is Section 905.4 of the International Fire Code. The International Fire Code is normally maintained by the IFC Committee, but Section 905.4 will be considered for revision in proposed code change E4-12 which will be placed on the IBC Means of Egress Committee agenda. In some instances, there are other subsections that are revised by an identified code change that is not included in the cross index. For example, numerous sections in Chapter 10 of the International Fire Code would be revised by the proposed changes to Chapter 10 of the IBC. This was done to keep the cross index brief enough for easy reference.

This information is provided to assist users in locating all of the proposed code changes that would affect a certain section or chapter. For example, to find all of the proposed code changes that would affect Chapter 7 of the IBC, review the proposed code changes in the portion of the monograph for the IBC Fire Safety Committee (listed with a FS prefix) then review this cross reference for Chapter 7 of the IBC for proposed code changes published in other code change groups. While care has been taken to be accurate, there may be some omissions in this list.

Letter prefix: Each proposed change number has a letter prefix that will identify where the proposal is published. The letter designations for proposed changes and the corresponding publications are as follows:

PREFIX	PROPOSED CHANGE GROUP (see monograph table of contents for location)
ADM	Administrative
E	International Building Code - Means of Egress
EB	International Existing Building Code
CE	International Energy Conservation Code – Commercial
RE	International Energy Conservation Code – Energy
F	International Fire Code
FG	International Fuel Gas Code
FS	International Building Code - Fire Safety
G	International Building Code – General
GEW	International Green Construction Code – Energy/Water
GG	International Green Construction Code – General
M	International Mechanical Code
PC	ICC Performance Code
P	International Plumbing Code
PSD	International Private Sewage Disposal Code
PM	International Property Maintenance Code
RE	International Residential Code - Building
RM	International Residential Code - Mechanical
RP	International Residential Code - Plumbing
S	International Building Code – Structural
SP	International Swimming Pool and Spa Code
WUIC	International Wildland-Urban Interface Code
Z	International Zoning Code

International Building Code		907.2.10.1	G71
		907.2.13.2	E4
101.4	G201	907.5.2.2	E4
101.4.7 (New)	G201	909.4.6	G32 Part II
104.11.3 (New)	FS73	909.9	S70
107.2.6	G198	909.18	S113, S117
110.3.5	S304	909.20	E4, E5
116.5	G201	909.21.7	S113
202	P27, P29	911.1.5	E4
403.5	E4, E7	1003.2	G62
404.6	FS41, FS99	Table 1004.1.2	G193
405.7.1	E3	1004.3	S90
410.6.1	E3	1005.7.2	G73
411.7	E3	1007.1	G237
414.7.2	E3	1007.6	G57
505.2.3	E7	1009.3	FS51, FS99
505.3	E101	1015.2.1	G85
703.2.3	S70	1015.4	G57
706.1	G103	1015.5	G57
707.5.1	E7	Table 1016.2	G32 Part I, G87
707.6	E4	1018.1	G31 Part I
707.7.1	E4	Table 1018.1	G32 Part I
709.5	G31 Part I	Table 1018.2	G32 part I
710.8	G32 Part I	1018.4	G32 Part I
711.4	E7	Table 1021.2(2)	G57
712.1.8	G32 Part I, G54, E7	1022.7	G85
712.1.12	E7	1027.1	G175
713.1	E4, E7	1203.1	M36, M37, M38, M39
713.14.1	G32 Part I, E110	1205.4	E4
713.14.1.2 (new)	G174 Part III	1207.1	E4
Table 716.5	G51, E4	1403.7	S102, S103
716.5.3	E3	1404.13 (New)	S309
717.5.5	G32 Part I	1507.16	G98
718.2.4	E4	1507.16.1	G98
722.5	S238	1508.1	FS178
Table 803.9	E4	1609.1.2	G199
901.5	S90	1808.7.3	G193
903.2.6	G31 Part II, G32 Part II	2103.15(New)	FS177
903.2.8	G31 Part II	2110.1.1	E4
903.2.8.1	G31 Part II	2303.1.4 (new)	G142 Part II
903.2.8.2 (new)	G31 Part II	2308.12.7	E4
903.2.8.2	G31 Part II	2405.3	G199
903.2.8.3 (new)	G31 Part II	2406.4	G193
903.3.1.3	G31 Part II	2406.4.5	G193
903.3.2	G32 Part II	2406.4.6	E4
905.3.3	E4	2406.4.7	E4
905.4	E4	2607.4	G199
906.2	G71	2609.4	G193, G199
Table 906.3(1)	G71	Table 2902.1.2 (New)	P27
Table 906.3(2)	G71	2902.2	P34
907.2.6	G32 Part II, G71	2902.3	P35
907.2.6.1	G31 Part II	2902.3.1	P36
907.2.6.4 (new)	G32 Part II	2902.3.5	P37

International Building Code (continued)		1003.2	G62
		Table 1004.1.2	G193
2902.4.1	P39	1005.7.2	G73
2902.6 (New)	P30	1007.1	G237
Table 2902.1.2 (New)	P27	1007.6	G57
3007.7	E110	1015.2.1	G85
3007.9	FS138	1015.4	G57
3008.7	E110	1015.5	G57
3008.9	FS138	Table 1016.2	G32 Part I, G87
3111.1	S3	1018.1	G31 Part I
3306.8	S90	Table 1018.1	G32 Part I
3311.1	E4	Table 1018.2	G32 part I
3401.2	S90	1018.4	G32 Part I
3406.1.3	E4	Table 1021.2(2)	G57
3406.4	E4	1022.7	G85
3411.8.4	E4	1027.1	G175
3411.8.15	E211	1104.6.1	E4
International Fire Code		1104.9	E4
		1104.10	E4
202	G1, G2, G11, G13, G31 Part I, G32 Part I, G43, G70	1104.12	E4
Definition of Group A	G27	1104.16	E4
Definition of Group B	G28, G29, G30	1104.20	E4
Definition of Group E	G27	1104.21	E4
Definition of Group I	G31 Part I, G32 Part I, G33, G34, G35, G36, G37	1104.23	E4
Definition of Group R	G31 Part I, G34, G36, G38, G39, G40, G41	3313.1	E4
Definition of Group S	G42	5005.4.4	E3
508.1.5	E4	5704.2.9.4	E4
604.2.16 (new)	G77	5706.5.1.12	E4
903.2.6	G31 Part II, G32 Part II	**INTERNATIONAL PLUMBING CODE**	
903.2.8	G31 Part II		
903.2.8.1	G31 Part II	202	G8, G193 Part IV, P3(HEARD BY IBC-S)
903.2.8.2 (new)	G31 Part II	309.2	P20 (HEARD BY IBC-S)
903.2.8.2	G31 Part II	403.3.3	G71
905.3.3	E4	403.3.4	G71
905.4	E4	403.5	G71
903.2.8.3 (new)	G31 Part II	423.1	G193 Part IV
903.3.1.3	G31 Part II	612.1	G193 Part IV
903.3.2	G32 Part II	801.1	G193 Part IV
906.2	G71	802.1.4	G193 Part IV
Table 906.3(1)	G71	**INTERNATIONAL MECHANICAL CODE**	
Table 906.3(2)	G71		
907.2.6	G32 Part II, G71	202	G8
907.2.6.1	G31 Part II	304.11	E108
907.2.6.4 (new)	G32 Part II	306.5.1	E4
907.2.10.1	G71	403.2.1	G193 Part II
907.2.13.2	E4	Table 403.3	G193 Part II
907.5.2.2	E4	601.3	E228, E229
909.4.6	G32 Part II	901.5	FG3

INTERNATIONAL MECHANICAL CODE (continued)		406.1	G225, G226
		410.5.1(new)	G235
901.6	FG3	410.6	G235, G236, G237
926.2	FG38	410.7	G237, G238, G240
926.3	FG38	410.7.1	G240
1107.2	E4	410.8	G239, E211
1401.1	G193 Part II	410.8 (new)	G237
INTERNATIONAL FUEL GAS CODE		410.8.1 (new)	G237
		410.8.4	G241
202	G8	410.8.6	G242
306.5.1	E4	410.8.9	G235, G236
614.6	M71	410.8.11	G243
Section 617	G193 Part III	606.2.2	G221 Part II
617.1	G193 Part III	606.2.3.1	G224 Part II
629.1	M169	907.2	G213 Part II
INTERNATIONAL PRIVATE SEWAGE DISPOSAL CODE		907.2.1	G213 Part II
		907.2.2	G213 Part II
		1401.2	G244
202	G8, P228 (HEARD BY IBC-S)	1401.2.5	G245
401.3.2	G193 Part IV	1401.3.2	G246
Table 406.1	G193 Part IV	Table 1401.3.2(new)	G246
Table 604.1(2)	G193 Part IV	1401.6	G244
Table 802.7.2	G193 Part IV	1401.6.1	G101
Table 802.8	G193 Part IV	1401.6.1.1	G101
INTERNATIONAL EXISTING BUILDING CODE		1401.6.2	G101, G244
		1401.6.2.1	G101
Chapters 3 through 14	G205	1401.6.4	G244
202	G23, G24	Table 1401.6.4	G244
402.1	G210	1401.6.5	G244
402.4	G211	Table 1401.6.5	G57, G244
403.1	G210, G212	1401.6.6	G51
403.3 (new)	G213 Part I	1401.6.7	G244
403.3.1 (new)	G213 Part I	1401.6.8	G244
403.3.2 (new)	G213 Part I	Table 1401.6.8	G244
403.3.3 (new)	G213 Part I	1401.6.8.1	G244
403.4	G211	1401.6.9	G244
403.4.1(new)	G214	Table 1401.6.9	G244
403.4.5 (new)	G215, G216, G217	1401.6.10	G244
403.5 (new)	G218	Table 1401.6.10	G244
403.7 (new)	G219	1401.6.11	G244
403.7.1(new)	G219	Table 1401.6.11	G244
403.7.2(new)	G219	1401.6.12	G244
403.7.3(new)	G219	Table 1401.6.12	G244
404.1	G212	1401.6.12.1	G244
404.2 (new)	G220	1401.6.16	G244
404.2	G221 Part I	1401.6.16.1	G244
404.2.1	G211	1401.6.17	G244
404.2.2	G222	Table 1401.6.17	G244
404.3	G223	1401.6.18	G244
404.3.1	G224 Part I	Table 1401.6.18	G244
404.4	G222	1401.6.20 (new)	G244
404.2.3	G211, G212	Table 1401.6.20 (new)	G244
404.5	G212	1401.6.21 (new)	G244

INTERNATIONAL EXISTING BUILDING CODE (continued)	
Table 1401.6.21.1 (new)	G244
1401.6.21.1.1(new)	G244
1401.6.21.2(new)	G244
Table 1401.6.21.2(new)	G244
1401.6.21.2.1(new)	G244
1401.6.21.3(new)	G244
Table 1401.6.21.3	G244
1401.6.21.3.1(new)	G244
Table 1401.7	G244
1401.8	G244
Table 1401.8	G244

2012 GROUP A CODE DEVELOPMENT HEARING SCHEDULE
April 29 – May 8, 2012
Sheraton Dallas Hotel

Unless noted by "Start no earlier than X am," each Code Committee will begin immediately upon completion of the hearings for the prior Committee. Thus the actual start times for the various Code Committees are tentative. The hearing volume is higher than previous cycles. The schedule anticipates that the hearings will finish by the times noted as "Finish" for each track.

Please note that the hearing start on Sunday, April 29th has been revised from 10:00 am to 12:00 pm from the originally posted version. Prior to the hearings starting at noon on Sunday, the following is also scheduled:

- Membership Councils: 8:00 am – 10:00 am
- CDP ACCESS update (Expanding code development participation): 10:15 am – 11:15 am

For more information on the scheduling of these two activities, be sure to check the link to the Member Committees page on the ICC Website: http://www.iccsafe.org/membership/pages/committees.aspx

	Sunday April 29	Monday April 30	Tuesday May 1	Wednesday May 2	Thursday May 3
TRACK 1	Start 12 pm IBC - FS End 9 pm	Start 8 am IBC - FS End 9 pm	Start 8 am IBC - FS IBC – G (Start no earlier than 8 am) End 9 pm	Start 8 am IBC - G End 9 pm	Start 8 am IBC – G IBC - E (Start no earlier than 8 am) End 9 pm
TRACK 2	Start 12 pm IFGC IPC/IPSDC End 9 pm	Start 8 am IPC/IPSDC End 9 pm	Start 8 am IPC/IPSDC IMC (Start no earlier than 8 am) End 9 pm	Start 8 am IMC End 9 pm	Start 8 am IMC IEBC – S (Start no earlier than 8 am) IBC – S End 9 pm

	Friday May 4	Saturday May 5	Sunday May 6	Monday May 7	Tuesday May 8
TRACK 1	Start 8 am IBC - E End 9 pm	Start 8 am IBC – E End 9 pm	Start 8 am IBC – E Finish 12 pm		
TRACK 2	Start 8 am IBC - S End 9 pm	Start 8 am IBC - S End 9 pm	Start 8 am IBC - S End 9 pm	Start 8 am IBC - S End 9 pm	Start 8 am IBC – S Finish 12 pm

Notes:
1. IEBC – S: Structural provisions in the IEBC to be heard by the IBC – Structural Code Committee.
2. Hearing times may be modified at the discretion of the Chairman.
3. Breaks will be announced. Lunch and dinner breaks planned for each track. There will not be a lunch break on Sunday, April 29th.

2012 PROPOSED CHANGES TO THE INTERNATIONAL CODES

CODE **PAGE**

2012 PROPOSED CHANGES TO THE INTERNATIONAL FUEL GAS CODE

FUEL GAS CODE COMMITTEE

Michael D. Redifer, MCP - *Chair*
Building Official
City of Newport News
Newport News, VA

Paul Cabot, CGE – *Vice Chair*
Administrator, National Fuel Gas Code
American Gas Association
Washington, DC

Keith O. Bienvenu
Rep: PHCC
Bienvenu Brothers Enterprises
Metairie, LA

Sylvester (Ron) Caudle
Rep: American Gas Association
Market Advisor Codes & Standards
Southern California Gas Company
Los Angeles, CA

Ronnie Ray Frazier
Rep: American Gas Association
Codes and Standards Manager
Atmosenergy.com
Dallas, TX

William T. Hamilton, CGE
Rep: American Gas Association
Manager, Technical Training
UGI Utilities, Inc.
Reading, PA

Dennis L. Holden
Rep: American Gas Association
Director, Customer Relations/
District Operations
Southwest Gas Corporation
Tucson, AZ

Lynn S. Niblock, MCP, CBO, CEO, CMO, CPO
Director of Code Enforcement & Special
Projects
Iredell County
Statesville, NC

William Olinger
Plumbing Inspector
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Andrea Lanier Papageorge, JD, MBA
Rep: American Gas Association
Manager, Codes and Standards
AGL Resources
Atlanta, GA

Thomas C. Pitcherello
Code Specialist
State of New Jersey – Dept. of Community
Affairs-Div. of Codes & Standards
Trenton, NJ

Timothy H. Swanson, CBCO/CFCO
Chief Building Official
City of Greeley
Greeley, CO

Staff Secretariat:
Gregg Gress
Senior Technical Staff
International Code Council
Country Club Hills, IL

AGA Liaison
Jim Ranfone
Managing Director
American Gas Association
Washington, DC

TENTATIVE ORDER OF DISCUSSION
2012 PROPOSED CHANGES TO THE INTERNATIONAL FUEL GAS CODE

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. Note that some IFGC code change proposals may not be included on this list, as they are being heard by other committees. Please consult the Cross Index of Proposed Changes.

FG1-12
FG2-12
FG3-12
FG4-12
FG5-12
FG6-12
FG7-12
FG8-12
FG9-12
FG10-12
FG11-12
FG12-12
FG13-12
FG14-12
FG15-12
FG16-12
FG17-12
FG18-12
FG19-12
FG20-12
FG21-12
FG22-12
FG23-12
FG24-12
FG25-12
FG26-12
FG27-12
FG28-12
FG29-12
FG30-12
FG31-12
FG32-12
FG33-12
FG34-12
FG35-12
FG36-12
FG37-12
FG38-12
FG39-12

FG1 – 12
301.15

Proponent: Bob Scott, Kye Lehr, Daryl Kuiper, Colorado Department of Regulatory Agencies, Division of Registrations Electrical and Plumbing Boards, representing self; Monty Hood, Plumbing Inspector, representing the state of Colorado

Revise as follows:

301.15. **Prohibited Locations.** The appliances, equipment and systems regulated by this code shall not be located in an elevator shaft. Gas-fired appliances shall not be located under egress stairs.

Reason: Locating gas appliances under stairs may cause a fire that could trap persons and prevent escape.

Cost Impact: None.

FG1-12

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

301.15-FG-SCOTT-LEHR-KUIPER-HOOD

FG2 – 12
303.3

Proponent: Guy McMann MCP, Jefferson County Colorado, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO) (gmcmann@jeffco.us)

Revise as follows:

303.3 Prohibited locations. Appliances shall not be located in sleeping rooms, bathrooms, toilet rooms, storage closets ~~or surgical rooms~~, or in a space that opens only into such rooms or spaces, except where the installation complies with one of the following:

1. The appliance is a direct-vent appliance installed in accordance with the conditions of the listing and the manufacturer's instructions.
2. Vented room heaters, wall furnaces, vented decorative appliances, vented gas fireplaces, vented gas fireplace heaters and decorative appliances for installation in vented solid fuel-burning fireplaces are installed in rooms that meet the required volume criteria of Section 304.5.
3. A single wall-mounted unvented room heater is installed in a bathroom and such unvented room heater is equipped as specified in Section 621.6 and has an input rating not greater than 6,000 Btu/h (1.76 kW). The bathroom shall meet the required volume criteria of Section 304.5.
4. A single wall-mounted unvented room heater is installed in a bedroom and such unvented room heater is equipped as specified in Section 621.6 and has an input rating not greater than 10,000 Btu/h (2.93 kW). The bedroom shall meet the required volume criteria of Section 304.5.
5. The appliance is installed in a room or space that opens only into a bedroom or bathroom, and such room or space is used for no other purpose and is provided with a solid weather-stripped door equipped with an approved self-closing device. ~~All~~ Combustion air shall be taken directly from the outdoors, ~~in accordance with Section 304.6~~ indoors or a combination of both in accordance with Section 304. Combustion air openings in the enclosure shall not communicate with the prohibited locations listed in this section.

Reason: No designer would ever install a fuel burning appliance in a surgical room and there could conceivably be a long list of other locations where fuel burning appliances should not be installed. There is no technical justification to limit combustion air to outdoor air only in this scenario. Indoor air can be effectively utilized when openings are sized per the code and those openings do not connect the enclosure with the various rooms listed. This could save money avoiding cutting holes in exterior walls and searching for a path for ducts to run which could be very difficult to achieve.

Cost Impact: This proposal may decrease the cost of construction**.**

FG2-12

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

303.3-FG-MCMANN

FG3 – 12
303.3.1 (New); IMC: 901.5 (New), 901.6 (New)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

THIS IS A 2 PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IFGC COMMITTEE AS 2 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDERS FOR THIS COMMITTEE.

PART I – IFGC

Add new text as follows:

303.3.1 Fireplaces and decorative appliances in Group I-2 occupancies. In addition to the requirements of Section 303.3, fuel gas-fired fireplaces and decorative appliances in Group I-2 occupancies shall not be located in sleeping rooms, storage closets, surgical rooms, toilet rooms and bathrooms located in the patient sleeping or dwelling units. Fuel gas-fired fireplaces and decorative appliances are permitted in other areas that open into such rooms or spaces only where the installation complies with all of the following:

1. Combustion air is taken directly from the outdoors,
2. Flue gases are discharged directly to the outdoors.
3. Appliance combustion chambers are separated from the environmental air on the interior of the building.
4. Appliances shall automatically shut down and stop fuel flow upon any of the following events:
   - 4.1 when temperatures exceed the appliance listing,
   - 4.2 when there is failure to ignite
   - 4.3 upon activation of the fire alarm system
5. Appliance controls are located in an approved restricted or locked location.
6. A carbon monoxide detector with a local alarm shall be provided and installed in accordance with Section 908.7 of the IBC.

PART II – IMC

Add new text as follows:

901.5 Fuel gas-fired Fireplaces and appliances in Group I-2. Fuel gas-fired fireplaces and decorative appliances located within smoke compartments containing patient sleeping rooms and surgical rooms in Group I-2 occupancies shall be installed in accordance with Section 303.3.1 of the IFGC.

901.6 Solid fuel-burning fire places and appliances in Group I-2. Solid fuel-burning fireplaces and appliances shall not be located in Group I-2 occupancies.

> **Exception:** Solid fuel-burning fireplaces and appliances shall not be prohibited in Group I-2 nursing homes provided that they are not located in smoke compartments that contain patient sleeping rooms.

Reason: This proposal is submitted by the ICC Ad Hoc Committee on Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 5 open meetings and over 80 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx .

The AHC is proposing a revision to address some of the oversights in the I-Codes of long-standing and operational requirements for hospitals and healthcare facilities that has not been specifically addressed. The requirements being proposed in this code change have been long-standing provisions of the construction and operational requirements for healthcare facilities.

Justification: The language proposed in the IFGC prescribes the limitations and conditions to provide the necessary safety and limitations of hazards found within the healthcare environments to the fire and ignition sources inherent to all fireplaces and gas-fired appliances. Combustion air is restricted from being drawn from a healthcare environment for more than the last decade. It is standard practice and operational procedure to control the ignition sources in these occupancies that can contain combustible, flammable (and sometimes even explosive) material. Fire risks need to be limited to the maximum extent feasible and specific requirements for these facilities are not currently or completely addressed in the I-Codes. The physical separation of the combustion chambers of fireplaces and gas-fired equipment is required to separate and provide a barrier between the ignition sources and the environmental air within healthcare occupancies. All combustion air is required to be taken directly from the exterior of the building with one exception that is already provided for in IFGC Section 303.3.

The solid fuel burning fireplaces and appliances (decorative or heating) present open flames that cannot otherwise be controlled or extinguished like similar gas-fired appliances. The attention to and the tending of the open flames from solid fuel burning appliances require the opening any surrounding compartment while the flames and ignition sources are present; thereby, exposing the I-2 environment (within the patient smoke compartment) to the ignition sources. When gas-fired appliances are utilized, the ability to completely control the fuel source and all open flames and ignition sources is possible and does not require exposure to or tending of solid fuel burning materials . The AHC committee is recommending the restriction of solid-fuel burning fireplaces and appliances in the I-2 occupancy.

Future submissions to proposals to the IFC are being drafted to clarify, restrict and limit the ignition source hazards in healthcare occupancies that will reference these requirements being proposed in the IBC, IMC AND IFGC. The code sections that address the installation of fuel gas-fire fireplaces and appliances will also provide alternative means for compliance for existing facilities. Given the hazards present with these appliances in the I-2 Occupancies, the proposed IFC requirements will be 'retro-active' requirements for healthcare occupancies (I-2); please note, these are not new requirements for the I-2 Occupancy facilities but are needed in the I-Codes for coordination of the long-standing provision of the construction and operational requirements for healthcare facilities.

Cost Impact: No increase to the cost of construction for these facilities is associated with these code changes. This change is consistent with existing federal certification requirements.

FG3-12
PART I – INTERNATIONAL FUEL GAS CODE

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

PART II – INTERNATIONAL MECHANICAL CODE

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

303.3.1-FG-Williams-Adhoc

FG4 – 12
303.4, 303.4.1 (New), 303.4.2 (New)

Proponent: Bob Scott, Kye Lehr, Daryl Kuiper, Colorado Department of Regulatory Agencies, Division of Registrations Electrical and Plumbing Boards, representing self; Dennis Gardner, State of Colorado Plumbing and Gas Inspector

Revise as follows:

303.4 Protection from vehicle impact damage. Appliances shall not be installed in a location subject to vehicle impact damage except where protected by ~~an~~ *approved* ~~means~~ physical barriers that comply with Section 303.4.1 or guard posts that comply with Section 303.4.2.

303.4.1 Physical barriers. Physical barriers shall be a minimum of 36" (614mm) in height and shall resist a force of 12,000 pounds (53 375N) applied 36 inches (914mm) above the adjacent floor surface.

303.4.2 Guard Posts. Guard posts shall be:

1. Constructed of steel pipe not less than 4 inches (102mm) in diameter and shall be filled with concrete.
2. Spaced not more than 4feet (1219mm) between posts on center.
3. Set not less than 3 feet (914mm) deep in a concrete footing not less than15 inches (381mm) in diameter.
4. Set with the top of the posts not less than 3 feet (914mm) above the floor.
5. Located not less than 3 feet (914mm) from the protected appliance.

Reason: No guidelines are given in this section for *approved* means. It took time and a lot of research to find these requirements which are only found in the International Fire Code. By incorporating these requirements in the code we have once again clarified the requirements for the Architect, Engineer, installer and the inspector. Making sure that what has been installed is adequate protection of gas fired appliance in the direct path of a vehicle, making it safer for the home owner, business owner and occupants.

Cost Impact: None, these barriers are already required by code, by adding the text it just insures the barriers are installed properly for life, health and safety of the occupants within the building.

FG4-12

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

303.4-FG-SCOTT-LEHR-KUIPER-GARDNER

FG5–12
307.6

Proponent: Guy McMann MCP, Jefferson County Colorado, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO) (gmcmann@jeffco.us)

Add new text as follows:

307.6 Condensate pumps. Condensate pumps located in uninhabitable spaces, such as attics and crawl spaces, shall be connected to the appliance or equipment served such that when the pump fails, the appliance or equipment will be prevented from operating. Pumps shall be installed in accordance with the manufacturers' installation instructions.

Reason: Pumps that are not connected in this fashion will permit the appliances to keep operating, spilling waste water where ever the appliance is located. When this condition continues over time, it could result in damage to building components or other property. This overflow condition may result in mold issues among other things. Most pump manufacturers already have this feature incorporated into the pump but the code does not require it to be connected. Damage as a result of not connecting this feature could prove to be very costly. This is not as much of a concern when appliances are readily accessible to occupants where leakage may be noticed in a timely manner.

Cost Impact: None

FG5-12

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

307.6 (NEW)-FG-MCMANN

FG6– 12
308.2, Chapter 8

Proponent: Bob Eugene, representing Underwriters Laboratories (Robert.Eugene@ul.com)

Revise as follows:

308.2 Reduction table. The allowable *clearance* reduction shall be based on one of the methods specified in Table 308.2 or shall utilize ~~an~~ a reduced clearance protective assembly *listed* ~~for such application~~ and labeled in accordance with UL 1618. Where required clearances are not listed in Table 308.2, the reduced clearances shall be determined by linear interpolation between the distances listed in the table. Reduced clearances shall not be derived by extrapolation below the range of the table. The reduction of the required clearances to combustibles for *listed* and *labeled* appliances and *equipment* shall be in accordance with the requirements of this section except that such clearances shall not be reduced where reduction is specifically prohibited by the terms of the *appliance* or *equipment* listing [see Figures 308.2(1) through 308.2(3)].

Add the standard to Chapter 8 as follows:

UL
1618-2009 Wall Protectors, Floor Protectors, and Hearth Extensions……308.2

Reason: UL 1618 is the ANSI standard used to list reduced clearance protective assemblies. UL 1618 is already referenced in the International Mechanical Code for reduced clearances.

Cost Impact: None

FG6-12

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

308.2-FG-EUGENE

FG7 – 12
311 (New)

Proponent: Guy McMann MCP, Jefferson County Colorado, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO) (gmcmann@jeffco.us)

Add new text as follows:

Section 311
Insulation protection

311.1 Protection of piping Insulation. Pipe insulation exposed to the weather shall be listed and labeled for exterior use or shall be protected in accordance with the manufacturer's installation instructions. Insulation subject to physical damage shall be protected by shields or by other approved methods.

Reason. Pipe insulation exposed to the elements needs to be protected from solar and UV effects and should be listed for such exposure when applied in this situation. Insulation must also be protected in locations where maintenance or other activity takes place that may damage the installation. This is information the plan reviewer, inspector or installer would need to be aware of at the planning stage of a project.

Cost Impact: None

FG7-12

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

311 (NEW)-FG-MCMANN

FG8 – 12
401.9

Proponent: James Ranfone, American Gas Association (jranfon@aga.org)

Revise as follows:

401.9 Identification. Each length of pipe and tubing and each pipe fitting, utilized in a fuel gas system, shall bear the identification of the manufacturer.

> **Exception:** The manufacturer identification for fittings and pipe nipples shall be on each piece or shall be printed on the fitting or nipple packaging or provided documentation.

Reason: The exception would allow identification of fittings to be provided on or with the packaging. Some piping fittings, short nipples for example, do not have the physical room for a manufacturers mark.

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

FG8-12

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

401.9-FG-RANFONE

FG9 – 12
401.9

Proponent: Robert Torbin, representing Omega Flex, Inc. (bob.torbin@omegaflex.net)

Revise as follows:

401.9 Identification. Each length of pipe and tubing and each pipe fitting, utilized in a fuel gas system, shall bear the identification of the manufacturer and the mark of an approved third-party testing or certifying agency.

Reason: There is no reasonable and cost-effective manner for the local code enforcement official to determine if the installed piping and fittings have actually been tested or certified without the mark of the testing/certifying agency identified on the piping/fitting. There is no practical way to transfer the paperwork associated with these products from the manufacturer to the plumbing supply house to the installer plumber and then to the local plumbing inspector.

Cost Impact: The code change proposal will not increase the cost of construction. If the manufacturer is required to have its piping and fitting products tested and certified as part of its compliance with the referenced standard, then the cost of adding an additional mark (the manufacturer's name is already required) to the piping and fittings is negligible or zero. CSST gas piping and fittings are currently marked with both the manufacturer's name and testing/certifying agency. However, the cost savings in the field will be significant with reductions in paperwork chasing and inspection labor.

FG9-12

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

401.9-FG-TORBIN

FG10 – 12
403.10.1

Proponent: Bob Scott, Kye Lehr, Daryl Kuiper, Colorado Department of Regulatory Agencies, Division of Registrations Electrical and Plumbing Boards, representing self; Dennis Gardner, State of Colorado Plumbing and Gas Inspector

Revise as follows:

403.10.1 Pipe joints. Pipe joints shall be threaded, flanged, brazed or welded. Where nonferrous pipe is brazed, the brazing materials shall have a melting point in excess of 1,000°F (538°C). Brazing alloys shall not contain more than 0.05-percent phosphorus. Welded pipe shall be installed by personnel who are qualified by testing to the requirements of the A.S.M.E. Boiler and pressure Vessels Code, Section IX. Welded joints shall be performed in accordance with the same requirements under which the welder was tested.

Reason: There are presently no requirements for welders or welds to meet under the IFGC code. This would set a minimum standard for the welder, and a minimum standard that all welded gas piping must meet. I have had piping welded in a one pass process, and after the problem was found the welds did not pass the testing requirements under which the welder was tested. In short, the welder short cut the process because there were no guidelines in the code to follow, thus bringing into question the strength and safety of the gas pipe welds.

Cost Impact: None, This process should already be followed.

FG10-12

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

403.10-FG-SCOTT-LEHR-KUIPER-GARDNER

FG11 – 12
403.10.1, 403.10.2, 403.10.3

Proponent: Pennie L. Feehan, Pennie L. Feehan Consulting, representing Copper Development Association (penniefeehan@me.com)

Revise as follows:

~~**403.10.1 Pipe joints.** Pipe joints shall be threaded, flanged, brazed or welded. Where nonferrous pipe is brazed, the brazing materials shall have a melting point in excess of 1,000°F (538°C). Brazing alloys shall not contain more than 0.05-percent phosphorus.~~

403.10.1 Pipe and tubing joints. Joints shall be threaded, flanged, brazed or welded. Brazed joints between copper pipe or tubing and fittings shall be made with brazing alloys having a liquid temperature above 1,000°F (538°C). All joints surfaces to be brazed shall be cleaned. An *approved* brazing flux shall be applied to the joint surfaces where required by manufacturer's recommendation. The joints shall be brazed with a brazing filler metal conforming to AWS A5.8. Brazing filler metal and shall be applied at the point where the pipe or tubing enters the socket of the fitting.

403.10.2 Pressed ~~Tubing~~ joints. ~~Tubing joints shall be made with *approved* gas tubing fittings, brazed with a material having a melting point in excess of 1,000°F (538°C) or made with~~ Ppress-connect fittings shall comply with ANSI LC-4. The joint shall be pressed using the tool recommended by the fitting manufacturer. ~~Brazing alloys shall not contain more than 0.05-percent phosphorus.~~

403.10.3 Flared joints. Flared joints shall be used only in systems constructed from nonferrous pipe and tubing where experience or tests have demonstrated that the joint is suitable for the conditions and where provisions are made in the design to prevent separation of the joints. Flared joints shall be made by a tool designed for that operation.

Reason: The above proposal combined two similar code sections and provides important language from the standards to aid the end user.

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

FG11-12

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

403.10.1-FG-FEEHAN

FG12 – 12
404.5

Proponent: James Ranfone, American Gas Association (jranfon@aga.org)

Revise as follows:

404.5 ~~Piping~~ Fittings in concealed locations. ~~Portions of a piping system~~ Fittings installed in concealed locations shall be limited to the following types: ~~not have unions, tubing fittings, right and left couplings, bushings, compression couplings and swing joints made by combinations of fittings.~~

1. Threaded elbows, tees and couplings
2. Brazed fittings
3. Welded fittings
4. Fittings listed to ANSI LC-1/CSA 6.26, Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST), or ANSI LC-4, Press-Connect Copper and Copper Alloy Fittings for Use in Fuel Gas Distribution Systems.

~~Exceptions:~~

1. ~~Tubing joined by brazing.~~
2. ~~Fittings listed for use in concealed locations~~.

Reason: There are three revisions requested by this proposal:

1. Specify the actual standards for fittings listed for use in concealed locations. Currently, these standards are LC-1 and LC-4. This revision will improve enforcement.
2. Allow the use of right and left couplings. These fittings are often used in large gas piping systems to ease the disassembly of a middle portion of the piping system. These couplings have historically been allowed by several large jurisdictions, including New York City.
3. Reorganize the requirements into a list format to improve clarity.

All of these changes have been adopted into the 2012 National Fuel Gas Code.

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

FG12-12

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

404.5-FG-RANFONE

FG13 – 12
404.6

Proponent: James Ranfone, American Gas Association (jranfon@aga.org)

Revise as follows:

404.6 ~~Underground penetrations prohibited.~~ Piping through Foundation Wall. ~~Gas piping shall not penetrate building foundation walls at any point below grade. Gas piping shall enter and exit a building at a point above grade and the annular space between the pipe and the wall shall be sealed.~~ Underground piping installed through the outer foundation or basement wall of a building, shall be encased in a protective sleeve or protected by an approved device or method. The space between the gas piping and the sleeve and between the sleeve and the wall shall be sealed to prevent entry of gas and water.

Reason: A change adopted into the 2012 edition would prohibit gas piping from penetrating a foundation wall below grade. This change was adopted without evidence that such penetrations have resulted in a safety concern. Below grade penetrations have long been permitted and have proven to be safe installation method. The revised language would reinstate this allowance.

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

FG13-12

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

404.6-FG-RANFONE

FG14 – 12
404.6

Proponent: Dan Buuck, representing National Association of Home Builders (NAHB) (dbuuck@nahb.org)

Delete and substitute as follows:

~~**404.6 Underground penetrations prohibited.** Gas *piping* shall not penetrate building foundation walls at any point below grade. Gas *piping* shall enter and exit a building at a point above grade and the annular space between the pipe and the wall shall be sealed.~~

404.6 Piping through foundation wall. Where installed below grade through the outer foundation or basement wall of a building, gas *piping* shall be encased in a protective sleeve or shall be protected by an approved device or method. The sleeve shall extend into the building at least 2 inches (508 mm) from the face of the foundation wall and at least 18 inches (457 mm) from the exterior wall face. The annular space between the gas *piping* and the sleeve and between the sleeve and the wall shall be sealed to prevent the entrance of gas and moisture.

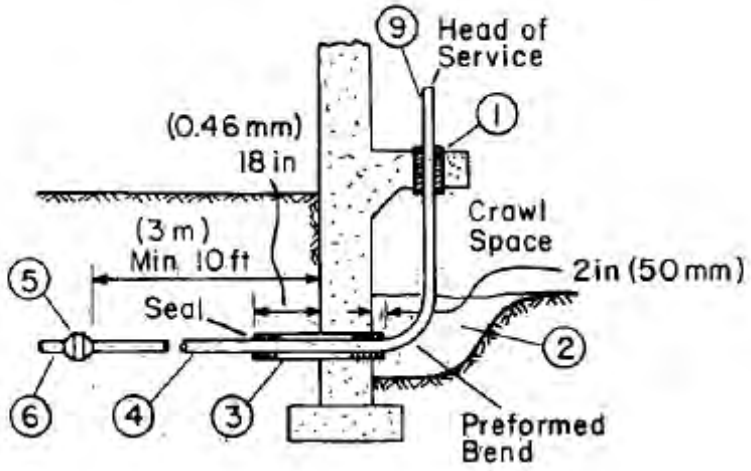
Reason: The conventional installation practice of allowing piping to go through foundation walls below grade should not be prohibited. This is an installation method that has been used for decades. No data was ever presented that would show a safety problem or inadequacy when a proper installation and sealing of the opening was installed in accordance with the IFGC. Furthermore, this proposal will coordinate the IFGC provisions with other industry fuel gas codes.

If there is an assumed problem that gas in the soil may be allowed to enter the building around the gas piping, then that should be specifically addressed in this section. Banning an installation method outright is the same as banning a product or material. If a method is found to meet the safety requirements of the code, then it should be allowed by the same. (See Section 105.2 Alternative materials, methods, appliances and equipment.)

It could be said that the current language of this section is faulty, because it does not provide intent. It simply bans a method. This proposal seeks to add the text “shall be sealed to prevent the entrance of gas and moisture” in order to give code officials the language necessary to identify the intent. It gives them the tools they need to ensure a safe installation—possibly by approving an alternate method. Fig. 1 shows a gasket that would provide effective protection against gas leaking into the building as it is designed to create a reliable seal against ground water. It is included as an example of a method which apparently was not considered when the current code language was adopted.

Requiring above grade entry points into the foundation will require extra piping and joints, both inside and outside, exposing the piping system to physical damage and increased risk of leakage on the outside of buildings as well as within the building. This increase in outside exposure will be particularly significant in a city or at congested commercial locations where piping must come above grade at times through sidewalks at the front or rear of the building or come through the ground in public ways before turning to enter the foundation or building. This will also present practical issues of locating the exterior and interior piping system to have entry points that are compatible with the building design, i.e., doorways, loading docks, accessible entry systems (ramps) etc. There will also be additional costs in these circumstances when the underground piping must be relocated to accommodate above-grade obstacles. How can this be accomplished in cities where streets, alleys, and sidewalks surround buildings? Currently gas meters are contained in below-grade vaults from where the gas piping enters the building. These installations are not underground, but the piping would still need to be routed up out of the vault to comply with this section (see definition of “grade”). This would arguably cause greater safety concerns due to the potential for impact from vehicles and pedestrians.

Finally, the insurance industry apparently has no concerns about below-grade gas piping penetrations as they provide details for a correct installation in the current edition of Factory Mutual’s Property Loss Prevention Data Sheets (see Figure below). According to FM Global’s engineering records, the 18-inch extension on the outside face of the foundation wall was added as an “additional precaution to prevent breakage and corrosion of buried pipe.”



(c.)

1. Pipe sleeve and seal of cement grout.
2. Excavation around inside pipe; at least 18 in. (0.46 m) clearance.
3. Pipe sleeve and seals of cement grout. Sleeve is copper when inner pipe is copper. Sleeve is steel with field- or shop-applied wrapping and coating when inner pipe is steel
4. Wrapped and coated steel pipe without joints or unwrapped copper tubing without joints.
5. First outside pipe joint.
6. Pitch to drain back to yard system.
7. Meter located in occupied space or out of doors.
8. Drip pot (if necessary) piped to outdoors.
9. Unwrapped pipe.

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

FG14-12

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

404.6-FG-BUUCK

FG15 – 12
404.7, 404.7.1 (New), 404.7.2 (New)

Proponent: Shawn Strausbaugh, Arlington County, VA, representing PMG CAC

Revise as follows:

404.7 Protection against physical damage. In concealed locations where *piping*, other than black or galvanized steel, is installed through holes or notches in studs, joists, rafters or similar members less than 1-1/2 inches (38 mm) from the nearest edge of the member, the pipe shall be protected by steel shield plates. ~~Protective steel~~ Such shield plates shall have~~ing~~ a ~~minimum~~ thickness of not less than 0.0575 inch (1.463 mm) (No. 16 gage). Such plates shall cover the area of the pipe where the member is notched or bored and shall extend not less than 4 inches (102 mm) above sole plates, and below top plates and to each side of a stud, joist, rafter or similar member.

404.7.1 Formed steel framing members. *Piping*, other than black or galvanized steel, shall not be installed within the channel of a formed steel framing member except where the piping is not less than 1-1/2 inches from the backside of any fastening face of the member.

404.7.2 Piping installed parallel to framing members. In concealed locations where *piping*, other than black or galvanized steel, is installed parallel to studs, joists, rafters or similar members less than 1-1/2 inches (38 mm) from the nearest edge of the member, such pipe shall be protected along its length by steel shield plates that comply with the requirements of Section 404.7.

Reason: Like the IPC, Section 404.7 does not address pipe or tubing run down the side of a stud or inside of a "C" channel metal stud or rafter. Such installations are subject to penetrations but the code addresses only holes and notches for pipe and tubing that runs perpendicular to the framing member. The NEC treats wiring that runs parallel to framing members the same as wiring that runs perpendicular. The IMC, IFGC and IPC need to catch up. If the sheeting material fasteners miss a framing member, they can easily penetrate piping which is why the code requires the protection shield to extend 4 inches on both sides. Placing piping parallel to a member, either on the side or within a channel, exposes the piping to penetration, yet current code addresses only perpendicular penetrations.

This proposal is submitted by the ICC Plumbing, Mechanical and Fuel Gas Code Action Committee (PMGCAC). The PMGCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the PMGCAC has held 2 open meetings, multiple conference calls and multiple workgroup calls which included members of the PMGCAC. Interested parties also participated in all of the meetings and conference calls to discuss and debate the proposed changes.

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

FG15-12

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

404.7-FG-STRAUSBAUGH.PMGCAC

FG16 – 12
404.8.1, 404.8.2, 404.14.1, 404.14.2

Proponent: Shawn Strausbaugh, Arlington County, VA, representing PMG CAC

Revise as follows:

~~**404.8.1 Conduit with one end terminating outdoors.** The conduit shall extend into an occupiable portion of the building and, at the point where the conduit terminates in the building, the space between the conduit and the gas *piping* shall be sealed to prevent the possible entrance of any gas leakage. The conduit shall extend not less than 2 inches (51 mm) beyond the point where the pipe emerges from the floor. If the end sealing is capable of withstanding the full pressure of the gas pipe, the conduit shall be designed for the same pressure as the pipe. Such conduit shall extend not less than 4 inches (102 mm) outside the building, shall be vented above grade to the outdoors andshall be installed so as prevent the entrance of water and insects.~~

~~**404.8.2 Conduit with both ends terminating indoors.** Where the conduit originates and terminates within the same building, the conduit shall originate and terminate in an accessible portion of the building and shall not be sealed. The conduit shall extend not less than 2 inches (51 mm) beyond the point where the pipe emerges from the floor.~~

404.8 Piping in solid floors. Piping in solid floors shall be laid in channels in the floor and covered in a manner that will allow access to the piping with a minimum amount of damage to the building. Where such piping is subject to exposure to excessive moisture or corrosive substances, the piping shall be protected in an approved manner. As an alternative to installation in channels, the piping shall be installed in a conduit of Schedule 40 steel, wrought iron, PVC or ABS pipe in accordance with Section 404.8.1 or 404.8.2. Where the conduit originates and terminates within the same building, the conduit shall originate and terminate in an accessible portion of the building and shall not be sealed. The conduit shall extend not less than 2 inches (51 mm) beyond the point where the pipe emerges from the floor.

~~**404.14.1 Conduit with one end terminating outdoors.** The conduit shall extend into an occupiable portion of the building and, at the point where the conduit terminates in the building, the space between the conduit and the gas *piping* shall be sealed to prevent the possible entrance of any gas leakage. The conduit shall extend not less than 2 inches (51 mm) beyond the point where the pipe emerges from the floor. Where the end sealing is capable of withstanding the full pressure of the gas pipe, the conduit shall be designed for the same pressure as the pipe. Such conduit shall extend not less than 4 inches (102 mm) outside of the building, shall be vented above grade to the outdoors and shall be installed so as to prevent the entrance of water and insects.~~

~~**404.14.2 Conduit with both ends terminating indoors.** Where the conduit originates and terminates within the same building, the conduit shall originate and terminate in an accessible portion of the building and shall not be sealed. The conduit shall extend not less than 2 inches (51 mm) beyond the point where the pipe emerges from the floor.~~

404.14 Piping underground beneath buildings. Piping installed underground beneath buildings is prohibited except where the piping is encased in a conduit of wrought iron, plastic pipe, steel pipe or other approved conduit material designed to withstand the superimposed loads. The conduit shall be protected from corrosion in accordance with Section 404.11 and shall be installed in accordance with Section 404.14.1 or 404.14.2. Where the conduit originates and terminates within the same building, the conduit shall originate and terminate in an accessible portion of the building and shall not be sealed. The conduit shall extend not less than 2 inches (51 mm) beyond the point where the pipe emerges from the floor.

Reason: Sections 404.8.1 and 404.14.1 are trumped by Section 404.6 and although they would still apply to a very limited type of installation, they give the appearance of a direct conflict with Section 404.6 and have caused interpretation issues. There is no actual conflict, but the main application of these sections was for bringing gas piping into or out of a building below grade which is now expressly prohibited by Section 404.6. These sections would now only apply to gas piping running from point A to point B within

the building. It is extremely unlikely that anyone would use these sections considering that Sections 404.8.2 and 404.14.2 provide a much simpler option that does not require a vent to the outdoors. Sections 404.8.1 and 404.14.1 should be deleted to avoid confusion and because they have almost no practical application value. The utility of these sections has been eliminated by the Section 404.6.

This proposal is submitted by the ICC Plumbing, Mechanical and Fuel Gas Code Action Committee (PMGCAC). The PMGCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the PMGCAC has held 2 open meetings, multiple conference calls and multiple workgroup calls which included members of the PMGCAC. Interested parties also participated in all of the meetings and conference calls to discuss and debate the proposed changes.

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

FG16-12

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

404.8.1-FG-STRAUSBAUGH.PMGCAC

FG17 – 12
404.14

Proponent: James Ranfone, American Gas Association (jranfon@aga.org)

Revise as follows:

404.14 Piping underground beneath buildings. Piping installed underground beneath buildings is prohibited except where the piping is encased in a conduit of wrought iron, plastic pipe, steel pipe or other approved conduit material designed to withstand the superimposed loads or is encased in a listed encasement system. The conduit shall be protected from corrosion in accordance with Section 404.11 and shall be installed in accordance with Section 404.14.1 or 404.14.2.

Reason: To permit the use of an encasement system that is listed. This change has been adopted into the 2012 National Fuel Gas Code.

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

FG17-12

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

404.14-FG-RANFONE

FG18 – 12
404.14

Proponent: Robert Torbin, representing Omega Flex, Inc. (bob.torbin@omegaflex.net)

Revise as follows:

404.14 Piping underground beneath buildings. Piping installed underground beneath buildings is prohibited except where the piping is encased in a conduit of wrought iron, plastic pipe, steel pipe, or other approved conduit material designed to withstand the superimposed loads or within an encasement system listed for installation beneath buildings. The conduit shall be protected from corrosion in accordance with Section 404.11 and shall be installed in accordance with Section 404.14.1 and 404.14.2.

Reason: ICC Evaluation Service has previously evaluated these types of encasement systems and has issues PMG listings. (ICC-ES PMG 1052) The 2012 National Fuel Gas Code Section 7.1.6 recognizes this type of conduit system. Use of pre-assembled encasement systems streamlines the installation of gas piping beneath builds, and also eliminates underground joints on both the conduit and internal gas piping. This will improve safety (no potential leakage sites) when installing such systems.

Cost Impact: The code change proposal will not increase the cost of construction. The use of encasement systems results in cost savings because the piping and encasement are installed simultaneously. This avoids the labor cost of separately installing the conduit and piping. In addition, the sealing and venting methods (when required) are also integrated within the encasement system, thus eliminating the need to separately assemble sealing and venting components onto standard conduit.

FG18-12

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

404.14-FG-TORBIN

FG19 – 12
404.18 (New)

Proponent: Shawn Strausbaugh, Arlington County, VA, representing PMG CAC

Add new text as follows:

404.18 Pipe cleaning. The use of a flammable or combustible gas to clean or remove debris from a piping system shall be prohibited.

Reason: The U.S. Chemical Safety and Hazard Investigation Board has recommended that the ICC include the proposed text in the applicable codes. This is in reaction to a tragic accident that occurred at a power plant in Connecticut in 2010. It is unsafe and unnecessary to use fuel gas as the medium to cleanse piping. Air, nitrogen, steam, water and pigs are all equally effective alternatives to fuel gases.

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

FG19-12

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

404.18-FG-STRAUSBAUGH.PMGCAC

FG20 – 12
409.1.4 (New)

Proponent: Andrew Scott Jones, President, A Better Deal Heating and Air Conditioning, Inc, representing self tfkolter@gmail.com/tom.kolter@yahoo.com

Add new text as follows:

409.1.4 Leak monitor. For newly installed piping systems, a device or system shall be installed that will monitor for water or gas leaks and provide automatic shut off of the water or gas supply.

Reason: Flood damage in buildings resulting from undetected and uncontrolled water leaks is substantial and can be largely eliminated with an automatic supply shut-off valve and leak detection system. Likewise, an uncontrolled gas leaks present a danger to life, and can be largely eliminated if residential properties were protected with an automatic shut off valve and leak detection system.

Many such systems are available on the market at varying costs with a variety of leak detection and shut-off designs. This proposal is limited to new construction and to total refit of plumbing and gas systems, not repairs.

Cost impact: This code change will increase the cost of construction.

FG20-12

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

409.1.4 (NEW)-FG-JONES

FG21 – 12
409.5

Proponent: Jean Steckler, representing TECO Americas (jeans@aa-fs.com)

Revise as follows:

409.5 Appliance shutoff valve. Each *appliance s*hall be provided with a shutoff valve in accordance with Section 409.5.1, 409.5.2 or 409.5.3. Each gas appliance shall be equipped with a passive thermal shut-off device that will automatically stop the flow of gas to the appliance in the event of a fire. The thermal gas shut-off device shall not be a substitute for the manual shut-off valve required by this section. A combination type valve that serves as both a shutoff valve and a thermal shutoff device satisfies the requirements of this section. The thermal shut-off device shall not require electricity or batteries to stop the flow of gas.

Reason: According to the National Fire Protection Association (NFPA), U.S. fire departments face 2,110 home fires each year where natural gas is the first material ignited, and 1,170 home fires a year where LP-gas is involved with the start of a fire. Most home gas fires originate in the kitchen at the stove or gas range.

Building occupants have a false sense of security regarding gas appliances. Occupants assume they have the protection of automatic thermal gas shut-offs, when in reality the manual valves have to be physically shut off to prevent gas release. An automatic thermal shut-off provides passive gas and fire safety, and does not depend on a facility manager to locate and manipulate a manual valve. Automatic thermal gas shutoffs stop the gas from feeding the fire during the time it takes for first responders to reach the facility.

When manual gas shut-off valves are combined with passive, automatic thermal shut-offs, occupants and first responders greatly reduce risk to their lives. And they are much better protected from personal harm and property damage. Automatic thermal gas shutoffs greatly reduce the amount of gas released to the atmosphere when fire occurs. Uncontrolled gas leaks pose a significant hazard to firefighters, emergency responders, and the public.

According to the National Fire Incident Reporting System (NFIRS) database, a system established by the National Fire Data Center of the United States Fire Administration (USFA) to document and develop uniform data reporting when gathering and analyzing information on fires across the U.S., there have been 36,577 fires in the 49 states and the District of Columbia where gas was the material first ignited resulting in an uncontrolled or self-perpetuating fire in the five year period between 2005-2009. Automatic thermal gas shutoffs mitigate consequences of fires:

- Thermal gas shutoffs stop the flow of gas instantaneously when the fire temperature reaches 212°F
- When the curb valve is too close to a burning building to be safely operated, or it is non-existent or inoperable
- Thermal gas shutoffs are intended to shutoff the flow of gas when fire occurs near the gas line
- Automatic thermal gas shutoffs assist in the prevention of risk to fire personnel and first responders when gas is released and acts as an accelerant

The primary incident consequences that would be reduced are deaths, injuries, and property damage. Additional benefits would be an expected reduction in the severity of fires, explosions, and evacuation occurring at incidents, and the quantity of gas lost during incidents.

Cost Impact: Minimal Cost Impact.

FG21-12

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

409.5-FG-STECKLER

FG22 – 12
409.5.3

Proponent: Brent Ursenbach, Salt Lake County, representing Utah Chapter ICC (bursenbach@slco.org)

Revise as follows:

409.5.3 Located at manifold. Where the *appliance* shutoff valve is installed at a manifold, such shutoff valve shall be located within 50' (15240mm) of the *appliance* served, shall be located on the same building level as the *appliance* and shall be readily accessible and permanently identified. The *piping* from the manifold to within 6 feet (1829 mm) of the *appliance* shall be designed, sized and installed in accordance with 401 through 408.

Reason: It is common to have a gas manifold located in a basement level furnace room or mechanical room, with gas appliances located on other levels within a building. It is poses a safety hazard to not have a gas shutoff reasonable close to the gas appliance. Installing and servicing technicians performing start-up and testing procedures on gas appliances may need to turn the gas on and off multiple times as they test inlet and outlet (manifold) pressures. It creates a hazardous condition to not have a means to immediately stop the gas flow while performing service on a gas appliance.

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

FG22-12

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

409.5.3-FG-URSENBACH

FG23 – 12
410.2

Proponent: Shawn Strausbaugh, Arlington County, VA, representing PMG CAC

Revise as follows:

410.2 MP regulators. MP pressure regulators shall comply with the following:

1. The MP regulator shall be approved and shall be suitable for the inlet and outlet gas pressures for the application.
2. The MP regulator shall maintain a reduced outlet pressure under lockup (no-flow) conditions.
3. The capacity of the MP regulator, determined by published ratings of its manufacturer, shall be adequate to supply the appliances served.
4. The MP pressure regulator shall be provided with access. Where located indoors, the regulator shall be vented to the outdoors or shall be equipped with a leaklimiting device, in either case complying with Section 410.3.
5. A tee fitting with one opening capped or plugged shall be installed between the MP regulator and its upstream shutoff valve. Such tee fitting shall be positioned to allow connection of a pressure-measuring instrument and to serve as a sediment trap.
6. A tee fitting with one opening capped or plugged shall be installed not less than 10 pipe diameters downstream of the MP regulator outlet. Such tee fitting shall be positioned to allow connection of a pressure-measuring instrument.
7. Where connected to rigid piping, a union shall be installed within 1 foot of either side of the MP regulator.

Reason: Section 410.2 needs an item # 7 to require a union upstream of the regulator to allow it to be removed/replaced. Currently, a regulator could be piped inline with rigid steel piping with no way to remove it or isolate it for pressure testing without disassembling a lot of piping upstream or downstream of the regulator. The union can be on either side of a regulator because it is there only to allow the regulator to be removed or isolated for piping testing purposes. Section 409.4 requires a shutoff valve ahead of the regulator.

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

FG23-12

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

410.2-FG-STRAUSBAUGH.PMGCAC

FG24 – 12
411.1, 411.1.1, 411.1.4

Proponent: James Ranfone, American Gas Association (jranfon@aga.org)

Revise as follows:

411.1 Connecting appliances. Except as required by Section 411.1.1, appliances shall be connected to the piping system by one of the following:

1. Rigid metallic pipe and fittings.
2. Corrugated stainless steel tubing (CSST) where installed in accordance with the manufacturer's instructions.
3. Semirigid metallic tubing and metallic fittings. Lengths shall not exceed 6 feet (1829 mm) and shall be located entirely in the same room as the appliance. Semirigid metallic tubing shall not enter a motor-operated appliance through an unprotected knockout opening.
4. Listed and labeled appliance connectors in compliance with ANSI Z21.24 and installed in accordance with the manufacturer's instructions and located entirely in the same room as the appliance.
5. Listed and labeled quick-disconnect devices used in conjunction with listed and labeled appliance connectors.
6. Listed and labeled convenience outlets used in conjunction with listed and labeled appliance connectors.
7. Listed and labeled outdoor appliance connectors in compliance with ANSI Z21.75/CSA 6.27 and installed in accordance with the manufacturer's instructions.
8. Listed outdoor gas hose connectors in compliance with ANSI Z21.54 used to connect portable outdoor appliances. The gas hose connection shall be made only in the outdoor area where the appliance is to be used, and shall be to the gas piping supply at an appliance shutoff valve, a listed quick-disconnect device, or listed gas convenience outlet.

411.1.1 Commercial cooking appliances. Commercial cooking appliances installed on casters and appliances that are moved for cleaning and sanitation purposes shall be connected to the piping system with an appliance connector listed as complying with ANSI Z21.69 ~~or in accordance with Item 1 or 3 of Section 411.1~~. The commercial cooking appliance connector installation shall be configured in accordance with the manufacturer's installation instructions. Movement of appliances with casters shall be limited by a restraining device installed in accordance with the connector and appliance manufacturer's instructions.

~~**411.1.4 Movable appliances.** Where appliances are equipped with casters or are otherwise subject to periodic movement or relocation for purposes such as routine cleaning and maintenance, such appliances shall be connected to the supply system piping by means of an approved flexible connector designed and labeled for the application. Such flexible connectors shall be installed and protected against physical damage in accordance with the manufacturer's installation instructions.~~

Reason: The proposal accomplishes three changes:

1. 411.1 - Add a requirement that a Z21.54 listed connector be used to connect portable outdoor appliances to the house piping system. Z21.54 connectors are designed for such application.
2. 411.1.1 - Requires the use of a Z21.69 listed connector for all commercial cooking appliances on casters and for appliances that are moved for cleaning purposes. This would change eliminate the use of rigid pipe and semirigid metallic tubing. Z21.69 connectors are designed specifically for such application. The change also adds requirements for the proper installation of the connector and requires the installation of a restraining device to project the connector.
3. 411.1.4 – The requirements in this section are covered by the proposed changes to 411.1.1 and the section is no longer needed.

These revisions are consistent with changes adopted into the 2012 National Fuel Gas Code.

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

FG24-12

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

411.1-FG-RANFONE

FG25 – 12
411.1.1

Proponent: Shawn Strausbaugh, Arlington County, VA, representing VA Plumbing and Mechanical Inspectors Association (VPMIA) and VA Building Code Officials Association (VBCOA)

Revise as follows:

411.1.1 Commercial cooking appliances. Commercial cooking appliances installed on casters ~~and appliances that are moved for cleaning and sanitation purposes~~ shall be connected to the piping system with an appliance connector listed as complying with ANSI Z21.69. ~~or in accordance with Item 1 or 3 of Section 411.1.~~

Reason: It's not advantageous to have line staff disconnecting and connecting unions and fittings or bending pipe in an effort to reconnect piping so as to be able to clean behind appliances on wheels. This is an unsafe practice. Simply requiring ANSI approved connectors is a much safer practice thereby preventing gas leaks.

When an appliance is manufactured on wheels or casters, it is for the sole purpose to enable movement usually to permit cleaning of the surfaces in the space it normally occupies. It is not reasonable to expect kitchen or cleaning staff to take apart unions or disconnect piping systems to perform daily routine cleaning. The proposal incorporates the ANSI standard which requires several things. First it will require a standoff restraint that is less distance than the connector. Then it requires a connector that is flexible in design and construction. Lastly the connecter will have a "quick-connect" adapter that allows even the most untrained personal to easily remove the line. The line must be reconnected properly or gas will not flow through the line.

Cost Impact: None.

FG25-12

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

411.1.1-FG-STRAUSBAUGH

FG26 – 12
411.1.1

Proponent: Guy McMann MCP, Jefferson County Colorado, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO) (gmcmann@jeffco.us)

Revise as follows:

411.1.1 Commercial cooking appliances. Commercial cooking appliances installed on casters and appliances that are moved for cleaning and sanitation purposes shall be connected to the piping system with an appliance connector listed as complying with ANSI Z21.69 ~~or in accordance with Item 1 or 3 of Section 411.1~~

Reason; It's not practical for line staff or others to remove pipe and fitting in order to move appliances for cleaning and servicing. This practice could become problematic and when not reconnected correctly could result in gas leaks. Only permitting a listed flex connector is a much safer practice.

Cost Impact: None

FG26-12

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

411.1.1-FG-MCMANN

FG27 – 12
411.1.1, 411.1.4

Proponent: Shawn Strausbaugh, Arlington County, VA, representing PMG CAC

Revise as follows:

~~**411.1.1 Commercial cooking appliances.** Commercial cooking appliances installed on casters and appliances that are moved for cleaning and sanitation purposes shall be connected to the piping system with an appliance connector listed as complying with ANSI Z21.69 or in accordance with Item 1 or 3 of Section 411.1.~~

411.1.4 Movable appliances. Where appliances are equipped with casters or are otherwise subject to periodic movement or relocation for purposes such as routine cleaning and maintenance, such appliances shall be connected to the supply system piping by means of an ~~approved flexible connector designed and labeled for the application~~ appliance connector listed as complying with ANSI Z21.69 or by means of item 1 of section 411.1. Such ~~flexible~~ connectors shall be installed and protected against physical damage in accordance with the manufacturer's installation instructions.

Reason: In Section 411.1.1, does it make sense to permit appliances on casters and appliances that are routinely moved to be connected with metallic tubing? Soft copper tubing, for example, would be work-hardened and damaged as the result of repeated movement and bending. If a deep fryer is on wheels and pulled out for cleaning once per month, who is going to disconnect and reconnect tubing fittings, test for leaks, etc ? Section 411.1.1 is redundant and not needed because section 411.1.4 already covers all movable appliances, including cooking appliances. There is no logical reason to treat cooking appliances differently than any other appliance that is on wheels or is moved for cleaning, servicing or maintenance. The same quality connection should apply for all such appliances. Specifying ANSI Z21.69 is preferable to just requiring the connector to be approved by the code official and labeled for the application. Most connector listings will not prohibit the connector from being used with a moveable appliance, therefore, other connectors that are not as robust as a Z21.69 connector could end up being used, even though they may not be suitable for such harsh duty. If an appliance is periodically moved, a special connector or rigid pipe connections should be used.

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

FG27-12

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

411.1.1-FG-STRAUSBAUGH.PMGCAC

FG28 – 12
502.1

Proponent: Larry Gill, P.Eng. IPEX USA LLC (larry.gill@ipexna.com)

Revise as follows:

502.1 General. All vents, except as provided in Section 503.7, shall be *listed* and *labeled*. Type B and BW vents shall be tested in accordance with UL 441. Type L vents shall be tested in accordance with UL 641. Vents for Category II, ~~and~~ III and IV appliances shall be tested in accordance with UL 1738. ~~Plastic vents for Category IV appliances shall not be required to be *listed* and *labeled* where such vents are as specified by the *appliance* manufacturer and are installed in accordance with the *appliance* manufacturer's installation instructions.~~

Reason: UL 1738 is the Standard for Safety for Venting Systems for Gas-Burning Appliances, Categories II, III, and IV and should be referenced in the IFGC for all venting materials included in scope of the standard. The current exception not requiring plastic venting to be listed and labelled should be removed as recent changes to UL 1738 now allow PVC and CPVC venting to be tested and listed to the 1738 standard. Further, appliance standards do not adequately address venting and only list plumbing DWV products. Plumbing products are not adequate for venting of appliances. UL 1738 is a system standard and does not permit the mixing of different pipe, fittings or joining methods from different manufacturers. This along with a listed and labelled system specifically designed for appliance venting will provide for a safer environment.

Cost Impact: The proposed change may increase the cost of construction depending on the cost of a listed and labeled venting system.

FG28-12

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

502.1-FG-GILL

FG29 – 12
502.7.1 (New)

Proponent: Guy McMann MCP, Jefferson County Colorado, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO) (gmcmann@jeffco.us)

Add new text as follows:

502.7.1 Door swing. Appliance and equipment vent terminals shall be located such that doors cannot swing within 12 inches (305 mm) horizontally of the vent terminal. Door stops or closures shall not be installed to obtain this clearance.

Reason: As indicated in the photo, any gas vent can be subject to damage as a result of a door swing even when the vent has been installed in accordance with the manufacturer's instructions. Most manufacturers do not address proximity to doors on a different plane. Even if the door doesn't come in contact with the vent terminal, the door could be too close to the vent when the appliance is operating and possibly overheating the door causing problems.

Cost Impact: None

FG29-12

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

502.7.1 (NEW)-FG-MCMANN

FG30 – 12
503.8

Proponent: James Ranfone, American Gas Association (jranfon@aga.org)

Revise as follows:

503.8 Venting system termination location. The location of venting system terminations shall comply with the following (see Appendix C):

1. A mechanical draft venting system shall terminate at least 3 feet (914 mm) above any forced-air inlet located within 10 feet (3048 mm).

   Exceptions:

   1. This provision shall not apply to the combustion air intake of a direct-vent appliance.
   2. This provision shall not apply to the separation of the integral outdoor air inlet and flue gas discharge of listed outdoor appliances.

2. A mechanical draft venting system, excluding directvent appliances, shall terminate at least 4 feet (1219 mm) below, 4 feet (1219 mm) horizontally from, or 1 foot (305 mm) above any door, operable window or gravity air inlet into any building. The bottom of the vent terminal shall be located at least 12 inches (305 mm) above finished ground level.
3. The vent terminal of a direct-vent appliance with an input of 10,000 Btu per hour (3 kW) or less shall be located at least 6 inches (152 mm) from any air opening into a building, and such an appliance with an input over 10,000 Btu per hour (3 kW) but not over 50,000 Btu per hour (14.7 kW) shall be installed with a 9-inch (230 mm) vent termination clearance, and an appliance with an input over 50,000 Btu/h (14.7 kW) shall have at least a 12-inch (305 mm) vent termination clearance.The bottom of the vent terminal and the air intake shall be located at least 12 inches (305 mm) above finished ground level.
4. Through-the-wall vents for Category II and IV appliances and noncategorized condensing appliances shall not terminate over public walkways or over an area where condensate or vapor could create a nuisance or hazard or could be detrimental to the operation of regulators, relief valves or other equipment. Where local experience indicates that condensate is a problem with Category I and III appliances, this provision shall also apply. Drains for condensate shall be installed in accordance with the appliance and vent manufacturers' instructions.
5. <u>Vent systems for Category IV appliances that terminate through an outside wall of a building and discharge flue gases perpendicular to the adjacent wall shall be located not less than 10 ft (3 m) horizontally from an operable opening in an adjacent building. This requirement shall not apply to vent terminals that are 2 ft (0.6 m) or more above or 25 ft (7.6 m) or more below operable openings.</u>

Reason: New Extract from the 2012 National Fuel Gas Code. The new coverage adds clearance provisions for category IV appliance side wall vent terminations to adjacent building openings. The National Fire Protection Foundation and the American Gas Association funded a computer modeling study to gauge the extent of ice buildup on adjacent properties from the exhaust of category IV appliances. While the modeling was limited in scope (number of appliances & Btu inputs, location of vent termination and clearance distances), the 10 ft clearance did show that ice buildup would be minimized. The new provision is being provided to the ICC for consideration as an extract for the IFGC.

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

FG30-12

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

503.8-FG-RANFONE

FG31 – 12
505.1.1

Proponent: Shawn Strausbaugh, Arlington County, VA, representing PMG CAC

Revise as follows:

505.1.1 Commercial cooking appliances vented by exhaust hoods. Where commercial cooking appliances are vented by means of the Type I or II kitchen exhaust hood system that serves such appliances, the exhaust system shall be fan powered and the appliances shall be interlocked with the exhaust hood system to prevent appliance operation when the exhaust hood system is not operating. The method of interlock between the exhaust hood system and the appliances equipped with standing pilot burner ignition systems shall not cause such pilots to be extinguished. Where a solenoid valve is installed in the gas piping as part of an interlock system, gas piping shall not be installed to bypass such valve. Dampers shall not be installed in the exhaust system.

> **Exception:** An interlock between the cooking appliance(s) and the exhaust hood system shall not be required where heat sensors or other approved methods automatically activate the exhaust hood system when cooking ~~operations occur~~ appliances are operating.

Reason: What about when the appliances are firing to be ready to cook, but no cooking is occurring? The hood system is typically the venting means for the products of combustion generated by the gas-fired appliances. The intent of the code is to make certain that the exhaust system is operating any time that the appliances are firing and this is not necessarily related to when actual cooking is taking place.

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

FG31-12

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

505.1.1-FG-STRAUSBAUGH.PMGCAC

FG32 – 12
505.1.1

Proponent: Guy McMann MCP, Jefferson County Colorado, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO) (gmcmann@jeffco.us)

Revise as follows:

505.1.1 Commercial cooking appliances vented by exhaust hoods. Where commercial cooking appliances are vented by means of the Type I or II kitchen exhaust hood system that serves such appliances, the exhaust system shall be fan powered and the appliances shall be interlocked with the exhaust hood system to prevent appliance operation when the exhaust hood system is not operating. The method of interlock between the exhaust hood system and the appliances equipped with standing pilot burner ignition systems shall not cause such pilots to be extinguished. Where a solenoid valve is installed in the gas piping as part of an interlock system, gas piping shall not be installed to bypass the solenoid valve and the circuitry for the interlock system shall be arranged to require a manual reset operation so that after power has been interrupted to the valve the valve will not automatically re-open upon restoration of the power supply. ~~Dampers shall not be installed in the exhaust system~~.

Exception: An interlock between the cooking appliance(s) and the exhaust hood system shall not be required where heat sensors or other approved methods automatically activate the exhaust hood system when cooking operations occur

Reason: A realistic scenario exists where in the event of a power failure during normal cooking operations the line stall could walk away from the stove or cook top and not shut off the valves. When the power comes back on gas could flow freely creating a potential disaster. In fact, any time that the hood is powered off for any reason, the kitchen staff could walk away from the appliances without turning off the burners and when the hood is powered again, the appliances could be unattended. Installing a manual reset device will ensure that this could not happen. The last sentence has been stricken as this is an IMC issue and isn't related to the IFGC.

Cost Impact: This may increase cost

FG32-12

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

505.1.1-FG-MCMANN

FG33 – 12
618.4, 618.5, 618.6, 309 (New), 310 (New)

Proponent: Guy McMann MCP, Jefferson County Colorado, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO) (gmcmann@jeffco.us)

Revise as follows:

~~**618.4 Prohibited sources.** Outdoor or return air for forcedair heating and cooling systems shall not be taken from the following locations:~~

1. ~~Closer than 10 feet (3048 mm) from an appliance vent outlet, a vent opening from a plumbing drainage system or the discharge outlet of an exhaust fan, unless the outlet is 3 feet (914 mm) above the outside air inlet.~~
2. ~~Where there is the presence of objectionable odors, fumes or flammable vapors; or where located less than 10 feet (3048 mm)above the surface of any abutting public way or driveway; or where located at grade level by a sidewalk, street, alley or driveway.~~
3. ~~A hazardous or insanitary location or a refrigeration machinery room as defined in the International Mechanical Code.~~
4. ~~A room or space, the volume of which is less than 25 percent of the entire volume served by such system. Where connected by a permanent opening having an area sized in accordance with Section 618.2, adjoining rooms or spaces shall be considered as a single room or space for the purpose of determining the volume of such rooms or spaces.~~

   ~~**Exception:** The minimum volume requirement shall not apply where the amount of return air taken from a room or space is less than or equal to the amount of supply air delivered to such room or space.~~

5. ~~A room or space containing an appliance where such a room or space serves as the sole source of return air.~~

   ~~**Exception:** This shall not apply where:~~

   1. ~~The appliance is a direct-vent appliance or an appliance not requiring a vent in accordance with Section 501.8.~~
   2. ~~The room or space complies with the following requirements:~~
      - ~~2.1. The return air shall be taken from a room or space having a volume exceeding 1 cubic foot for each 10 Btu/h (9.6L/W) of combined input rating of all fuel-burning appliances therein.~~
      - ~~2.2. The volume of supply air discharged back into the same space shall be approximately equal to the volume of return air taken from the space.~~
      - ~~2.3. Return-air inlets shall not be located within 10 feet (3048 mm) of a draft hood in the same room or space or the combustion chamber of any atmospheric burner appliance in the same room or space.~~
   3. ~~Rooms or spaces containing solid fuel-burning appliances, provided that return-air inlets are located not less than 10 feet (3048 mm) from the firebox of such appliances.~~
6. ~~A closet, bathroom, toilet room, kitchen, garage, boiler room, furnace room or unconditioned attic.~~

   ~~**Exceptions:**~~

   1. ~~Where return air intakes are located not less than 10 feet (3048 mm) from cooking appliances and serve only the kitchen area, taking return air from a kitchen area shall not be prohibited.~~
   2. ~~Dedicated forced air systems serving only a garage shall not be prohibited from obtaining return air from the garage.~~

~~7. A crawl space by means of direct connection to the return side of a forced-air system. Transfer openings in the crawl space enclosure shall not be prohibited.~~

618.5 Return air and outdoor openings. Return air openings shall be located and installed in accordance with Section 309. Outdoor air openings shall be located and installed in accordance with Section 310.

~~**618.5 Screen.** Required outdoor air inlets for residential portions of a building shall be covered with a screen having 1/4-inch (6.4 mm) openings. Required outdoor air inlets serving a nonresidential portion of a building shall be covered with screen having openings larger than 1/4 inch (6.4 mm) and not larger than 1 inch (25 mm).~~

~~**618.6 Return-air limitation.** Return air from one dwelling unit shall not be discharged into another dwelling unit .~~

Add new text as follows:

SECTION 309
RETURN AIR

309.1 Return air openings. Return air openings for heating, ventilation and air conditioning systems shall comply with all of the following:

1. Openings shall not be located less than 10 feet measured in any direction from an open combustion chamber or draft hood of another appliance located in the same room or space.
2. Return air shall not be taken from a hazardous or insanitary location or a refrigeration room as defined in this code.
3. The amount of return air taken from any room or space shall be not greater than the flow rate of supply air delivered to such room or space.
4. Return and transfer openings shall be sized in accordance with the appliance or equipment manufacturers' installation instructions, Manual D or the design of the *registered design professional*.
5. Return air shall not be taken from a closet, bathroom, toilet room, kitchen garage, mechanical room, boiler room, furnace room or unconditioned attic.

   Exceptions:

   1. Where return air is taken from a kitchen and such return air serves the kitchen only, openings shall be located not less than 10 feet from the cooking appliances.
   2. Dedicated forced air systems serving only the garage shall not be prohibited from obtaining return air from the garage

6. Taking return air from a crawl space shall not be accomplished through a direct connection to the return side of a forced air furnace. Transfer openings in the crawl space enclosure shall not be prohibited.
7. Return air from one dwelling unit shall not be discharged into or taken from another dwelling unit.

310
INTAKE OPENINGS.

310.1 Intake opening location. Air intake openings shall comply with all of the following:

1. Intake openings shall be located a minimum of 10 feet (3048 mm) from lot lines or buildings on the same lot.

2. Mechanical and gravity outdoor air intake openings shall be located not less than 10 feet (3048 mm) horizontally from any hazardous or noxious contaminant source, such as vents, streets, alleys, parking lots and loading docks, except as specified in Item 3 or Section 501.2.1. Outdoor intake openings shall be permitted to be located less than 10 feet horizontally from streets, alleys, parking lots and loading docks provided that the openings are located not less than 25 feet (7620 mm) vertically above such locations. Where openings front a street or public way, the distance shall be measured from the closest edge of the street or public way.
3. Intake openings shall be located not less than 3 feet (914 mm) below contaminant sources where such sources are located within 10 feet (3048 mm) of the opening.
4. Intake openings on structures in flood hazard areas shall be at or above the elevation required by Section 1612 of the *International Building Code*.

310.2 Intake opening protection. Air intake openings that terminate outdoors shall be protected with corrosion-resistant screens, louvers or grilles. Openings in louvers, grilles and screens shall be sized in accordance with Table 310.2, and shall be protected against local weather conditions. Louvers that protect air intake openings in structures located in hurricane-prone regions, as defined in the *International Building Code*, shall comply with AMCA 550. Outdoor air intake openings located in exterior walls shall meet the provisions for exterior wall opening protectives in accordance with the International Building Code.

TABLE 310.2
OPENING SIZES IN LOUVERS, GRILLES AND SCREENS PROTECTING AIR INTAKE OPENINGS

OUTDOOR OPENING TYPE	**MINIMUM AND MAXIMUM OPENING SIZES IN LOUVERS, GRILLES AND SCREENS MEASURED IN ANY DIRECTION**
Intake openings in residential occupancies	Not < 1/4 inch and not > 1/2 Inch
Intake openings in other than residential occupancies	> 1/4 inch and not > 1 inch

For SI:1 inch =25.4mm.

(Renumber subsequent sections)

Reason: This is an attempt to reorganize and delete language in this section that contains outdated legacy code language. Also, this proposal separates outside and return air openings into two distinct categories and places them in a neutral place. These requirements apply to more than just furnaces. This section is much more complicated than it needs to be as the foremost concern regarding return air is to keep contaminants out of the openings and air stream. This section is long over-due for an overhaul, the intent in which is to simplify the matter.

- This section is being relocated to more central location as the subject matter applies to more than just furnaces; it applies to air conditioning and ventilation systems as well. A simple reference to this new Section is all that will be required. Outdoor air intake openings now have their own section as well.

- Existing item 1 and 2 dealt primarily with outdoor opening which can be referenced in the new 310.2.

- Existing text in item 3 remains in its new location.

- Existing text in item 4 will literally prevent a return air opening in most bedrooms as they are usually less than 25% of the area served. There is no technical justification for this benchmark. What significance would there be between 25% and 26% that will impact the return air system? There is no need for such an arbitrary benchmark. What's really important is not to take too much air out of a room as noted in the new #3.

- The size of any transfer should be according to design, not arbitrary, outdated numbers as in the existing #4

- Item 5 has many problems and has been deleted in its entirety. It's a tortured approach as it attempts to describe a furnace in an enclosure with no return air duct along side a water heater all the while using the enclosure as a plenum utilizing louvered doors or openings to bring air back to the unit. This is not current practice and is prohibited. It calls for volume which is twice as much as current combustion requirements and is very difficult to explain the picture it attempts to deliver.

- Existing text in item 6 and 7 remain in the new location.

Section 618.7 has been incorporated into the new location as #7.
All the usual requirements that can affect the quality and installation of return air openings are contained in this new location and in turn, simplifies the subject matter for the user. There are no new requirements.

Cost Impact: None

FG33-12

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

618.5 #1-FG-MCMANN

FG34 – 12
618.4, 618.4 (New)

Proponent: Guy McMann MCP, Jefferson County Colorado, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO) (gmcmann@jeffco.us)

Revise as follows:

~~**618.4 Prohibited sources.** Outdoor or return air for forcedair heating and cooling systems shall not be taken from the following locations:~~

1. ~~Closer than 10 feet (3048 mm) from an appliance vent outlet, a vent opening from a plumbing drainage system or the discharge outlet of an exhaust fan, unless the outlet is 3 feet (914 mm) above the outside air inlet.~~
2. ~~Where there is the presence of objectionable odors, fumes or flammable vapors; or where located less than 10 feet (3048 mm)above the surface of any abutting public way or driveway; or where located at grade level by a sidewalk, street, alley or driveway.~~
3. ~~A hazardous or insanitary location or a refrigeration machinery room as defined in the International Mechanical Code.~~
4. ~~A room or space, the volume of which is less than 25 percent of the entire volume served by such system. Where connected by a permanent opening having an area sized in accordance with Section 618.2, adjoining rooms or spaces shall be considered as a single room or space for the purpose of determining the volume of such rooms or spaces.~~

   ~~**Exception:** The minimum volume requirement shall not apply where the amount of return air taken from a room or space is less than or equal to the amount of supply air delivered to such room or space.~~

5. ~~A room or space containing an appliance where such a room or space serves as the sole source of return air.~~

   ~~**Exception:** This shall not apply where:~~

   1. ~~The appliance is a direct-vent appliance or an appliance not requiring a vent in accordance with Section 501.8.~~
   2. ~~The room or space complies with the following requirements:~~
      - ~~2.1. The return air shall be taken from a room or space having a volume exceeding 1 cubic foot for each 10 Btu/h (9.6L/W) of combined input rating of all fuel-burning appliances therein.~~
      - ~~2.2. The volume of supply air discharged back into the same space shall be approximately equal to the volume of return air taken from the space.~~
      - ~~2.3. Return-air inlets shall not be located within 10 feet (3048 mm) of a draft hood in the same room or space or the combustion chamber of any atmospheric burner appliance in the same room or space.~~
   3. ~~Rooms or spaces containing solid fuel-burning appliances, provided that return-air inlets are located not less than 10 feet (3048 mm) from the firebox of such appliances.~~
6. ~~A closet, bathroom, toilet room, kitchen, garage, boiler room, furnace room or unconditioned attic.~~

   ~~**Exceptions:**~~

   1. ~~Where return air intakes are located not less than 10 feet (3048 mm) from cooking appliances and serve only the kitchen area, taking return air from a kitchen area shall not be prohibited.~~
   2. ~~Dedicated forced air systems serving only a garage shall not be prohibited from obtaining return air from the garage.~~

~~7. A crawl space by means of direct connection to the return side of a forced-air system. Transfer openings in the crawl space enclosure shall not be prohibited.~~

618.4 Supply, Return and outdoor air. Supply, return and outdoor air installations shall be installed in accordance with the *International Mechanical Code*.

Reason: The purview of the Fuel Gas Code presides over the gas fired appliance. How the appliance is ducted and all that surrounds it should be up to the other codes. The Fuel Gas code doesn't attempt to tell the user how to electrically wire it, so why should it tell the user how to duct it.

Cost Impact: None

FG34-12

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

618.5 #2-FG-MCMANN

FG35 – 12
618.4, 618.5 (New), 618.6 (New)

Proponent: James Ranfone, American Gas Association (jranfon@aga.org)

Delete and substitute as follows:

~~**618.4 Prohibited sources.** Outdoor or return air for forcedair heating and cooling systems shall not be taken from the following locations:~~

1. ~~Closer than 10 feet (3048 mm) from an appliance vent outlet, a vent opening from a plumbing drainage system or the discharge outlet of an exhaust fan, unless the outlet is 3 feet (914 mm) above the outside air inlet.~~
2. ~~Where there is the presence of objectionable odors, fumes or flammable vapors; or where located less than 10 feet (3048 mm)above the surface of any abutting public way or driveway; or where located at grade level by a sidewalk, street, alley or driveway.~~
3. ~~A hazardous or insanitary location or a refrigeration machinery room as defined in the International Mechanical Code.~~
4. ~~A room or space, the volume of which is less than 25 percent of the entire volume served by such system. Where connected by a permanent opening having an area sized in accordance with Section 618.2, adjoining rooms or spaces shall be considered as a single room or space for the purpose of determining the volume of such rooms or spaces.~~

   ~~**Exception:** The minimum volume requirement shall not apply where the amount of return air taken from a room or space is less than or equal to the amount of supply air delivered to such room or space.~~

5. ~~A room or space containing an appliance where such a room or space serves as the sole source of return air.~~

   ~~**Exception:** This shall not apply where:~~

   1. ~~The appliance is a direct-vent appliance or an appliance not requiring a vent in accordance with Section 501.8.~~
   2. ~~The room or space complies with the following requirements:~~
      - ~~2.1. The return air shall be taken from a room or space having a volume exceeding 1 cubic foot for each 10 Btu/h (9.6L/W) of combined input rating of all fuel-burning appliances therein.~~
      - ~~2.2. The volume of supply air discharged back into the same space shall be approximately equal to the volume of return air taken from the space.~~
      - ~~2.3. Return-air inlets shall not be located within 10 feet (3048 mm) of a draft hood in the same room or space or the combustion chamber of any atmospheric burner appliance in the same room or space.~~
   3. ~~Rooms or spaces containing solid fuel-burning appliances, provided that return-air inlets are located not less than 10 feet (3048 mm) from the firebox of such appliances.~~
6. ~~A closet, bathroom, toilet room, kitchen, garage, boiler room, furnace room or unconditioned attic.~~

   ~~**Exceptions:**~~

   1. ~~Where return air intakes are located not less than 10 feet (3048 mm) from cooking appliances and serve only the kitchen area, taking return air from a kitchen area shall not be prohibited.~~
   2. ~~Dedicated forced air systems serving only a garage shall not be prohibited from obtaining return air from the garage.~~

~~7. A crawl space by means of direct connection to the return side of a forced-air system. Transfer openings in the crawl space enclosure shall not be prohibited.~~

618.5 Outdoor air openings: Outdoor air intake openings for a forced-air heating system shall be located in accordance with all of the following:

1. Outdoor air openings located within 10 feet horizontally of an appliance vent outlet, a plumbing vent outlet, or an exhaust fan discharge outletshall be not less than 3 feet below such outlets.
2. They shall be not less than 10 feet (3048 mm) above the surface of any adjoining sidewalk, street, alley or driveway.
3. They shall be an approved distance from a storage location where the stored materials emit odors, fumes, hazardous or flammable vapors.

618.6 Indoor return air openings: Indoor return air intake openings for a forced-air heating system shall be in accordance with all of the following:

1. Shall be located in rooms or spaces where the supply air rate discharged back into the room or space is equal to or greater than the return air rate taken from the space.
2. Shall be located a minimum of 10 feet (3048 mm) from a cooking appliance or the firebox or draft hood of a natural draft vented fuel-burning appliance.
3. Where located in a closet, bathroom, toilet room, kitchen, garage, boiler room, furnace room or attic. Return air is permitted to be taken from such spaces where they are served by a dedicated force-air heating system and the supply air rate discharged back into the room or space is equal to or greater than the return air rate taken from the space.
4. Return air intake openings shall not be located in the following locations:
   4.1. Where stored materials emit odors, fumes, hazardous or flammable vapors
   4.2. A refrigeration machinery room as defined in the *International Mechanical Code*

Reason: The proposal seeks to clarify the provisions as follows:
1. Reorganize code requirements by outdoor and indoor air opening locations.
2. State provisions in a positive manner and minimize the use of exceptions.
3. Eliminate unenforceable language or language open to wide interpretation – for example “insanitary location”, “objectionable odors”
4. Simplify the requirements regarding indoor return air openings
5. Allow return air openings a wider variety of spaces where a dedicated forced-air system is installed. Currently coverage only permits kitchen installations.
6. Eliminate the 25% requirement that has no technical basis. The revised text such spaces to be supplied with an equal or greater rate of supply air. (New 618.6 #1)

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

FG35-12

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

618.5-FG-RANFONE

FG36 – 12
621.2, 621.4

Proponent: Craig Conner, Building Quality, representing self

Revise as follows:

Revise as follows:

~~**621.2 Prohibited use.** One or more unvented room heaters shall not be used as the sole source of comfort heating in a dwelling unit.~~

621.4 Prohibited locations. Unvented room heaters shall not be installed within occupancies in Groups A, E and I. Unvented room heaters shall not be installed within dwelling units. The location of unvented room heaters shall also comply with Section 303.3.

Reason: Unvented room heaters should not be allowed in the dwelling units of new, tight, energy-efficient buildings. A new study by the Building Research Council at the University of Illinois measured the air quality produced by unvented heaters as used in real residences. The study demonstrated problems with the indoor air quality in residences with unvented heaters. The study also calls into question the extent of the protection provided by one of the industry's key safety devices, the oxygen depletion sensor (ODS).

A study of 30 homes with unvented gas fireplaces was recently published in the Indoor Air journal[1]. The study monitored the combustion products in the residences. Of the greatest concern was the measured nitrogen dioxide levels (NO_2). There are 4 relevant guidelines/standards for NO_2. About 40% of the residences exceeded both the most lenient ANSI Standard Z21.11.2 value of 300 ppb and the Health Canada guideline of 250 ppb. About 80% exceeded both the US National Ambient Air Quality Standards/EPA standard of 100 ppb and the World Health Organization (WHO) guideline of 110 ppb.[2] A whopping 40% were at least triple the US standard. The study concluded

"*Levels of NO_2 that exceeded health-based guidelines occurred regardless of usage patterns, so should be considered inherent to the fireplace performance."*

Twenty percent of the heaters exceeded the carbon monoxide (CO) safety level, as established by the US National Ambient Air Quality Standards/EPA standard of 100 ppm (8 hour period).

Unvented heater proponents routinely argue that unvented heaters with oxygen depletion sensors (ODS) have never been shown to have significant health or safety issues. The unvented trade association says "*Vent-free appliances feature an automatic safety shut-off device (Oxygen Detection System or ODS). The ODS turns off the gas in case of a malfunction.*" It is perhaps stating the obvious, but an oxygen depletion sensor monitors oxygen, not carbon monoxide or nitrogen dioxide. Clearly the ODS sensor allowed the indoor air quality to exceed safe levels far too often. It is clear that the ODS did not turn of the gas for the 20% of the heaters that exceeded the carbon monoxide (CO) safety level. Worse yet an outright majority of the unvented heaters exceeded the safety levels for NO^2. (http://www.ventfree.org/images/stories/files/VentFree_SafeEfficient_V06.pdf)

The study monitored the combustion products in the residences for only 3 to 4 days in each of the 30 homes. It only took 3 or 4 days to find the air quality problems reported. Longer monitoring would likely have reported problems with additional residences. Does the industry still conclude there is no evidence of problems?

The 2012 IECC requires residences in most of the US (climates zone 3 to 8) to be tested to show an air leakage of 3 ACH50 or less (IECC R402.4.1.2). The residences in this study were also tested for air tightness, with the tightest being almost twice as leaky as allowed by the new IECC and the average (median) being almost 4 times as leaky as allowed by the new energy code. New commercial buildings also have substantially more stringent air tightness requirements ((IECC C402.4). If anything, the study of the 30 residences underestimates the air quality problems in new dwelling units.

As if to echo these concerns with health and safety here, it is significant that a number of the producers of vented heater products refuse to produce unvented products due to their concerns with health and safety issues (Hearth & Home Technologies, Jotul, Kozy Heat Fireplaces, Mendota Fireplaces, Renni, Travis Industries), including the largest maker of fireplaces and hearth products.

Unvented gas room heaters do not belong in dwelling units.

1. "Measured concentrations of combustion gases from the use of unvented gas fireplaces". Francisco, P. W., Gordon, J. R. and Rose, B. (2010), Indoor Air, volume 20: pages 370–379.
2. NO_2 measurements are average over one hour.
3. http://www.ventfree.org/images/stories/files/VentFree_SafeEfficient_V06.pdf

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

FG36-12

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

621.2-FG-CONNER

FG37 – 12
623.2

Proponent: James Ranfone, American Gas Association (jranfon@aga.org)

Revise as follows:

623.2 Prohibited location. Cooking appliances designed, tested, *listed and labeled for use in commercial occupancies* shall not be installed within dwelling units or within any area where domestic cooking operations occur.

Exception: Appliances that are also listed as domestic cooking appliances.

Reason: There are cooking appliances that carry dual listings, meeting the requirements of both the commercial and residential ANSI cooking standards. Section 623.2 currently prohibits such appliances from being installed in dwelling units. The exception is meant to allow dual listed appliances to be installed in dwelling units that are listed to the Z21.58 (residential) and Z83.11 (commercial) standards.

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

FG37-12

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

623.2-FG-RANFONE

FG38 – 12

635.2 (New), 635.2.2 (New), 635.3 (New), Chapter 8; IMC: 926.2 (New), 926.2.1 (New), 926.2.2 (New), 926.3 (New)

Proponent: Robert J Davidson, Code Consultant, Davidson Code Concepts, LLC (rjd@davidsoncodeconcepts.com); Robert Boyd, Chair – Hydrogen Industry Panel on Codes (HIPOC)

THIS IS A 2 PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IFGC COMMITTEE AS 2 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDERS FOR THIS COMMITTEE.

PART I - IFGC

Add new text as follows:

SECTION 635 (IFGC)
GASEOUS HYDROGEN SYSTEMS

635.2 Hydrogen generation. Hydrogen generators shall be tested and listed or shall be approved. Hydrogen generators shall be installed in accordance with the manufacturer's instructions, the International Building Code and the International Fire Code.

635.2.1 Water electrolysis process. Hydrogen generators utilizing the water electrolysis process shall be tested and listed in accordance with ISO 22734-1 or ISO 22734-2.

635.2.2 Fuel processing technologies. Hydrogen generators utilizing fuel processing technologies with a capacity of less than 400 m3/h at 0 °C and 101,325 kPa, shall be tested and listed in accordance with ISO 16110-1.

635.3 Generators with integral storage. Hydrogen generators with integral storage shall be located in accordance with the International Fire Code.

Add new standards to Chapter 8 as follows:

ISO 22734-1:2008 Hydrogen generators using water electrolysis process -- Part 1: Industrial and commercial applications

ISO 22734-2:2011 Hydrogen generators using water electrolysis process -- Part 2: Residential applications

ISO 16110-1:2007 Hydrogen generators using fuel processing technologies -- Part 1: Safety

PART II – IMC

Add new text as follows:

SECTION 926
GASEOUS HYDROGEN SYSTEMS

926.1 Installation. The installation of gaseous hydrogen systems shall be in accordance with the applicable requirements of this code, the International Fire Code, the International Fuel Gas Code and the International Building Code.

926.2 Hydrogen generation. Hydrogen generators shall be tested and listed or shall be approved Hydrogen generators shall be installed in accordance with the manufacturer's instructions, the International Building Code, the International Fuel Gas Code and the International Fire Code.

926.2.1 Water electrolysis process. Hydrogen generators utilizing the water electrolysis process shall be tested and listed in accordance with ISO 22734-1 or ISO 22734-2.

926.2.2 Fuel processing technologies. Hydrogen generators utilizing fuel processing technologies with a capacity of less than 400 m3/h at 0 °C and 101,325 kPa, shall be tested and listed in accordance with ISO 16110-1.

926.3 Generators with integral storage. Hydrogen generators with integral storage shall be located in accordance with the International Fire Code.

Add new standards to Chapter 15 as follows:

ISO 22734-1:2008 Hydrogen generators using water electrolysis process -- Part 1: Industrial and commercial applications

ISO 22734-2:2011 Hydrogen generators using water electrolysis process -- Part 2: Residential applications

ISO 16110-1:2007 Hydrogen generators using fuel processing technologies -- Part 1: Safety

Reason: The purpose of this code change is to correct an unintended consequence that came about as the I-Codes have been added to and modified to provide for the safe use of hydrogen as a fuel gas for fuel cells in both stationary and mobile applications.

Hydrogen generators without integral storage of the hydrogen gas have long been in use in industrial and laboratory settings for the production of hydrogen gas as a fuel gas. They can be safely used in indoor or outdoor applications in accordance with manufacturer's instructions and relevant codes and standards. In many situations a hydrogen gas generator is a safer option than stored cylinders of compressed hydrogen. When a generator is shut down you stop generating hydrogen, the hydrogen gas that may remain is what is in the closed fuel gas supply piping. Whereas a cylinder of compressed hydrogen gas will continue to contain whatever amount of gas remains in a compressed state, maintaining the possibility of a release beyond what is in the fuel gas piping.

With the crafting of new language for the safe use of various applications involving hydrogen as a fuel gas the codes and standards have developed and applied distance to exposure requirements for installations involving the storage of hydrogen gas. The distance tables are built around the hazard presented by the amount of hydrogen stored and the conditions of storage. Those distances were not intended to apply to the hydrogen generators that do not have integral storage of the hydrogen produced. Unfortunately code officials have occasionally, and incorrectly, applied the new location and distance requirements against hydrogen generators without integral storage.

What this proposal does is add language to both the IFGC and the IMC specific to hydrogen generators requiring that they be tested and listed or approved. It provides three new referenced standards for two common types of hydrogen generators and it clarifies that only those hydrogen generators with integral storage of the hydrogen gas produced are to be located as required by the International Fire Code.

Cost Impact: The code change proposal will not increase the cost of construction; it will reduce costs by eliminating the unintended application of new site distance requirements to hydrogen generators.

Analysis: A review of the standard proposed for inclusion in the code, ISO 22734-1, ISO 22734-2, and ISO 16110-1 with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 2, 2012.

FG38-12
PART I - INTERNATIONAL FUEL GAS CODE

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

PART II - INTERNATIONAL MECHANICAL CODE

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

635.2 (NEW)-FG-DAVIDSON

FG39– 12
704.1.2, 704.1.2.4, 705.2, 705.3, Chapter 8

Proponent: Robert J Davidson, Code Consultant, Davidson Code Concepts, LLC (rjd@davidsoncodeconcepts.com); Robert Boyd, Chair – Hydrogen Industry Panel on Codes (HIPOC)

Revise as follows:

704.1.2 Piping systems. Piping, tubing, valves and fittings conveying gaseous hydrogen shall be designed and installed in accordance with Sections 704.1.2.1 through 704.1.2.5.1, Chapter 50 of the International Fire Code, and ~~ASME B31.3~~ ASME B31.12. Cast-iron pipe, valves and fittings shall not be used.

704.1.2.4 Joints. Joints in piping and tubing in hydrogen service shall be listed as complying with ASME B31.3 to include the use of welded, brazed, flared, socket, slip and compression fittings. Gaskets and sealants used in hydrogen service shall be listed as complying with ~~ASME B31.3~~ ASME 31.12. Threaded and flanged connections shall not be used in areas other than hydrogen cutoff rooms and outdoors.

705.2 Inspections. Inspections shall consist of a visual examination of the entire piping system installation and a pressure test. Hydrogen piping systems shall be inspected in accordance with this code. Inspection methods such as outlined in ~~ASME B31.3~~ ASME 31.12shall be permitted where specified by the design engineer and approved by the code official. Inspections shall be conducted or verified by the code official prior to system operation.

705.3 Pressure tests. A hydrostatic or pneumatic leak test shall be performed. Testing of hydrogen piping systems shall utilize testing procedures identified in ~~ASME B31.3~~ ASME 31.12 or other approved methods, provided that the testing is performed in accordance with the minimum provisions specified in Sections 705.3.1 through 705.4.1.

Add new standard to Chapter 8 as follows:

ASME B31.12-2008 Hydrogen Piping and Pipelines

Reason: The Hydrogen Industry Panel on Codes and Standards recommends this change from one ASME standard to another. In 2008 ASME published the standard, ASME B31.12 Hydrogen Piping and Pipelines, this standard incorporates all of the hydrogen related content from ASME 31.3 of B31.1, B31.3 and B31.8, thus making a single reference to ASME 31.12 all that is needed. In addition the ASME Hydrogen Piping standard B31.12 provides expanded guidance on material selection, testing and fabrication specific to hydrogen applications. ASME B31.12 is accepted in the emerging hydrogen transport fuel industry as well as the tradtional industrial hydrogen applications used by industriy. This change also harmonizes the IFGC with similar model codes for hydrogen applications and would simplify both regulation and compliance by reducing the quantity of reference documents.

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

Analysis: A review of the standard proposed for inclusion in the code, ASME B31.12 with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 2, 2012.

FG39-12

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

704.1.2-FG-DAVIDSON