2007/2008 PROPOSED CHANGES TO THE INTERNATIONAL FUEL GAS CODE

FUEL GAS CODE COMMITTEE

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TENTATIVE ORDER OF DISCUSSION

2007/2008 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.

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FG1-07/08	FG34-07/08
FG2-07/08, Part I	FG35-07/08
FG3-07/08, Part I	FG36-07/08
FG4-07/08, Part I	FG37-07/08
FG5-07/08, Part I	FG38-07/08
FG6-07/08, Part I	FG39-07/08
FG7-07/08, Part I	FG40-07/08
FG8-07/08	FG41-07/08
FG9-07/08	FG42-07/08
FS5-07/08, Part IV	FG43-07/08
FG10-07/08	FG44-07/08
FG11-07/08	M88-07/08, Part
FG12-07/08	FG45-07/08, Part I
FG13-07/08	FG46-07/08, Part I
G16-07/08, Part IV	FG47-07/08
G17-07/08, Part IV	FG48-07/08
FG14-07/08	FG50-07/08
FG15-07/08	FG51-07/08
M7-07/08, Part III	
FG16-07/08	
M9-07/07, Part III	
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FG33-07/08	

FG1-07/08 103.2, 103.3, 103.4

Proponent: Rebecca Baker, Jefferson County, CO, Chair, ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin)

Revise as follows:

SECTION 103 (IFGC) DEPARTMENT OF INSPECTION

103.2 Appointment. The code official shall be appointed by the chief appointing authority of the jurisdiction; and the code official shall not be removed from office except for cause and after full opportunity to be heard on specific and relevant charges by and before the appointing authority.

103.3 Deputies. In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the code official shall have the authority to appoint a deputy code official, other related technical officers, inspectors and other employees. <u>Such employees shall have powers as delegated by the code official.</u>

103.4 Liability. The code official, <u>member of the board of appeals</u> officer or employee charged with the enforcement of this code, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered liable personally, and is hereby relieved from all personal liability for any damage accruing to persons or property as a result of an act or by reason of an act or omission required or permitted in the discharge of official duties.

Any suit instituted against any officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representative of the jurisdiction until the final termination of the proceedings. The code official or any subordinate shall not be liable for costs in an action, suit or proceeding that is instituted in pursuance of the provisions of this code; and any officer of the Department of Inspection, acting in good faith and without malice, shall be free from liability for acts performed under any of its provisions or by reason of any act or omission in the performance of official duties in connection therewith.

Reason: Consistency and coordination among the I-Codes are cornerstones of the ICC Code Development Process. This holds true for not only the technical code provisions but also for the administrative code provisions as contained in Chapter 1 of all the I-Codes.

In response to concerns raised by the ICC membership since publication of the first editions of the I-Codes, the ICC Board established, for the 2006/2007 cycle, and extended, for the 2007/2008 cycle, the ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) to review Chapter 1 administrative provisions in the International Codes family and improve the correlation among the I-Codes through the code development process.

The AHC-Admin is submitting a series of code change proposals designed to provide consistent and correlated administrative provisions among the I-Codes. The intent of this correlation effort is not necessarily to have absolutely identical text in each of the I-Codes but, rather, text that has the same intent in accomplishing the administrative tasks among the I-Codes.

This proposal focuses on the Department of Inspection and is being proposed by the AHC-Admin to correlate the IFGC with the International Building Code, International Residential Code, and International Existing Building Code, and the changes that were approved in the 2006/2007 cycle to the International Fire Code, International Mechanical Code, International Plumbing Code, International Private Sewage Disposal Code, International Property Maintenance Code and International Wildland-Urban Interface Code. A section-by-section discussion follows:

103.2: The AHC feels that text relating to the removal of the code official should be deleted because it is a local personnel procedural matter that is outside the scope of the code. Removal from office is not usually associated with an administrative code chapter, but is more frequently found in state statute, a union contract or civil service law.

103.3: The proposed new text provides the code official with an important administrative tool in assigning personnel to assist with the administration and enforcement of the code within the department, thus enhancing the code official's ability to efficiently manage the department.

103.4: The purpose of this proposed change is to provide correlation with the texts of all the other I-Codes, which the AHC feels provide a more logical presentation of the provision. Importantly, the changes to this section would include the board of appeals members along with the code official and department employees that are protected from personal liability in the discharge of their duties for those actions performed in accordance with the code in a reasonable and lawful manner. In most jurisdictions, the board of appeals members are citizen volunteers and should be protected from liability exposure. Without such protection, it would be difficult to attract volunteers to serve on the board of appeals.

Public Hearing: Committe	e: AS	AM	D
Assembly	: ASF	AMF	DF

FG2–07/08 IFGC 106.3.2 (New); IMC 106.3.2 (New); IPC 106.3.2 (New); IPSDC 106.2.2 (New); IWUIC 105.4.1 (New)

Proponent: Rebecca Baker, Jefferson County, CO, Chair, ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin)

THESE PROPOSALS ARE ON THE AGENDA OF THE IFGC, IMC, IPC, IPSDC AND IWUIC CODE DEVELOPMENT COMMITTEES AS FIVE SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

PART I – IFGC

Add new text as follows:

106.3.2 Preliminary inspection. Before a permit is issued, the code official is authorized to inspect and approve the systems, equipment, buildings, devices, premises, and spaces or areas to be used.

PART II – IMC

Add new text as follows:

106.3.2 Preliminary inspection. Before a permit is issued, the code official is authorized to inspect and approve the systems, equipment, buildings, devices, premises, and spaces or areas to be used.

PART III – IPC

Add new text as follows:

106.3.2 Preliminary inspection. Before a permit is issued, the code official is authorized to inspect and approve the systems, equipment, buildings, devices, premises, and spaces or areas to be used.

PART IV – IPSDC

Add new text as follows:

106.2.2 Preliminary inspection. Before a permit is issued, the code official is authorized to inspect and approve the systems, equipment, buildings, devices, premises, and spaces or areas to be used.

PART V - IWUIC

Add new text as follows:

105.4.1 Preliminary inspection. Before a permit is issued, the code official is authorized to inspect and approve the systems, equipment, buildings, devices, premises, and spaces or areas to be used.

Reason: Consistency and coordination among the I-Codes are cornerstones of the ICC Code Development Process. This holds true for not only the technical code provisions but also for the administrative code provisions as contained in Chapter 1 of all the I-Codes.

In response to concerns raised by the ICC membership since publication of the first editions of the I-Codes, the ICC Board established, for the 2006/2007 cycle, and extended, for the 2007/2008 cycle, the ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) to review Chapter 1 administrative provisions in the International Codes family and improve the correlation among the I-Codes through the code development process.

The AHC-Admin is submitting a series of code change proposals designed to provide consistent and correlated administrative provisions among the I-Codes. The intent of this correlation effort is not necessarily to have absolutely identical text in each of the I-Codes but, rather, text that has the same intent in accomplishing the administrative tasks among the I-Codes.

This proposal focuses on inspections prior to permit issuance and is being submitted by the AHC-Admin to correlate the IFGC, IMC, IPC, IPSDC and IWUIC with current Section 109.2 of the *International Building Code* and *International Existing Building Code*, Section 105.2.2 of the *International Fire Code* and the change that was approved in the 2006/2007 cycle to create Section R105.9 of the *International Residential Code* (see *Supplement to the International Codes*/2007).

This provision would provide the code official with a useful tool in the permit process, especially in cases of permits being issued for an existing building. While the construction documents may show the scope and nature of work to be done, there may be other existing conditions in the building that could affect the continued safety profile of the building and the approval of a permit which could only be discovered by inspection.

PART I – IFGC				
Public Hearing:	Committee: Assembly:	AS ASF	AM AMF	D DF
PART II – IMC				
Public Hearing:	Committee: Assembly:	AS ASF	AM AMF	D DF
PART III – IPC				
Public Hearing:	Committee: Assembly:	AS ASF	AM AMF	D DF
PART IV – IPSI	DC			
Public Hearing:	Committee: Assembly:	AS ASF	AM AMF	D DF
PART V – IWUI	С			
Public Hearing:	Committee: Assembly:	AS ASF	AM AMF	D DF

FG3-07/08

106.3.2 (New); IMC 106.3.2 (New); IPC 106.3.2 (New); IPSDC 106.2.2 (New); IWUIC 105.4.1 (New)

Proponent: Rebecca Baker, Jefferson County, CO, Chair, ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin)

THESE PROPOSALS ARE ON THE AGENDA OF THE IFGC, IMC, IPC, IPSDC AND IWUIC CODE DEVELOPMENT COMMITTEES AS FIVE SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IFGC

Add new text as follows:

106.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the code official is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

PART II – IMC

Add new text as follows:

106.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the code official is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

PART III – IPC

Add new text as follows:

106.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit

has been issued; except that the code official is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

PART IV - IPSDC

Add new text as follows:

106.2.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the code official is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

PART V – IWUIC

Add new text as follows:

105.4.1 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the code official is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

Reason: Consistency and coordination among the I-Codes are cornerstones of the ICC Code Development Process. This holds true for not only the technical code provisions but also for the administrative code provisions as contained in Chapter 1 of all the I-Codes.

In response to concerns raised by the ICC membership since publication of the first editions of the I-Codes, the ICC Board established, for the 2006/2007 cycle, and extended, for the 2007/2008 cycle, the ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) to review Chapter 1 administrative provisions in the International Codes family and improve the correlation among the I-Codes through the code development process.

The AHC-Admin is submitting a series of code change proposals designed to provide consistent and correlated administrative provisions among the I-Codes. The intent of this correlation effort is not necessarily to have absolutely identical text in each of the I-Codes but, rather, text that has the same intent in accomplishing the administrative tasks among the I-Codes.

This proposal focuses on the administration of permit applications and is being submitted by the AHC-Admin to correlate the IFGC, IMC, IPC, IPSDC and IWUIC with current Section 105.3.2 of the *International Building Code* and *International Existing Building Code*, Section R105.3.2 of the *International Residential Code* and Section 105.2.3 of the *International Fire Code*. It is not unusual to have a permit application submitted in good faith, only to have it later abandoned for any number of reasons. Abandoned permit applications and their accompanying documents can become an administrative burden and take up valuable storage space. The new section would provide the code official with a useful administrative tool in the processing of permit applications by limiting the time between the review process and the issuance of a permit and reduce the burden of storing abandoned applications. It would also provide the authority to grant extensions of time when such extensions are justified.

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

PART I – IFGC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART II – IMC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART III – IPC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART IV – IPS	DC			
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART V – IWUIC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

FG4-07/08 IFGC 106.4.5; IMC 106.4.5; IPC 106.5.5; IPSDC 106.3.5

Proponent: Rebecca Baker, Jefferson County, CO, Chair, ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin)

THESE PROPOSALS ARE ON THE AGENDA OF THE IFGC, IMC AND IPC AND IPSDC CODE DEVELOPMENT COMMITTEES AS FOUR SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

PART I – IFGC

Revise as follows:

106.4.5 Suspension or revocation of permit. The code official <u>is authorized to suspend or revoke a permit issued</u> under the provisions of this code wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code. shall revoke a permit or approval issued under the provisions of this code in case of any false statement or misrepresentation of fact in the application or on the construction documents upon which the permit or approval was based.

PART II – IMC

Revise as follows:

106.4.5 Suspension or revocation of permit. The code official <u>is authorized to suspend or revoke a permit issued</u> under the provisions of this code wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code. shall revoke a permit or approval issued under the provisions of this code in case of any false statement or misrepresentation of fact in the application or on the construction documents upon which the permit or approval was based.

PART III – IPC

Revise as follows:

106.5.5 Suspension or revocation of permit. The code official is authorized to suspend or revoke a permit issued under the provisions of this code wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code. shall revoke a permit or approval issued under the provisions of this code in case of any false statement or misrepresentation of fact in the application or on the construction documents upon which the permit or approval was based.

PART IV - IPSDC

Revise as follows:

106.3.5 Suspension or revocation of permit. The code official <u>is authorized to suspend or revoke a permit issued</u> under the provisions of this code wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code. shall revoke a permit or approval issued under the provisions of this code in case of any false statement or misrepresentation of fact in the application or on the construction documents upon which the permit or approval was based.

Reason: Consistency and coordination among the I-Codes are cornerstones of the ICC Code Development Process. This holds true for not only the technical code provisions but also for the administrative code provisions as contained in Chapter 1 of all the I-Codes.

In response to concerns raised by the ICC membership since publication of the first editions of the I-Codes, the ICC Board established, for the 2006/2007 cycle, and extended, for the 2007/2008 cycle, the ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) to review Chapter 1 administrative provisions in the International Codes family and improve the correlation among the I-Codes through the code development process.

The AHC-Admin is submitting a series of code change proposals designed to provide consistent and correlated administrative provisions among the I-Codes. The intent of this correlation effort is not necessarily to have absolutely identical text in each of the I-Codes but, rather, text that has the same intent in accomplishing the administrative tasks among the I-Codes.

This proposal focuses on permit suspension or revocation and is being submitted by the AHC-Admin to correlate the IFGC, IMC, IPC and IPSDC with current Section 105.6 of the International Building Code and International Existing Building Code, Section R105.6 of the International Residential Code, Section 105.5 of the International Fire Code and Section 105.10 of the International Wildland-Urban Interface Code.

The revised text gives needed discretion to the code official in determining whether a permit should be suspended or revoked rather than imposing a mandatory duty upon the code official, which the AHC judged to be more appropriate than the current restrictive text.

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

PART I – IFGC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART II – IMC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART III – IPC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART IV – IPS	DC			
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

FG5-07/08 IFGC 106.4.6; IMC 106.4.6; IPC 106.5.6; IPSDC 106.3.6; IWUIC 106.8; IFC 105.4.6

Proponent: Rebecca Baker, Jefferson County, CO, Chair, ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin)

THESE PROPOSLAS ARE ON THE AGENDA OF THE IFGC, IMC, IPC, IPSDC, IWUIC AND IFC CODE DEVELOPMENT COMMITTEES AS SIX SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

PART I – IFGC

Revise as follows:

106.4.6 Retention of construction documents. One set of <u>approved</u> construction documents shall be retained by the code official <u>until final approval of the work covered therein.</u> <u>for a period of not less than 180 days from date of</u> <u>completion of the permitted work, or as required by state or local laws</u>. One set of approved construction documents shall be returned to the applicant, and said set shall be kept on the site of the building or work at all times during which the work authorized thereby is in progress.

PART II – IMC

Revise as follows:

106.4.6 Retention of construction documents. One set of <u>approved</u> construction documents shall be retained by the code official for a period of not less than 180 days from date of completion of the permitted work, or as required by <u>state or local laws</u> until final approval of the work covered therein. One set of approved construction documents shall be returned to the applicant, and said set shall be kept on the site of the building or job at all times during which the work authorized thereby is in progress.

PART III – IPC

Revise as follows:

106.5.6 Retention of construction documents. One set of <u>approved</u> construction documents shall be retained by the code official <u>until final approval of the work covered therein.</u> <u>for a period of not less than 180 days from date of</u> completion of the permitted work, or as required by state or local laws.

One set of approved construction documents shall be returned to the applicant, and said set shall be kept on the site of the building or work at all times during which the work authorized thereby is in progress.

PART IV - IPSDC

Revise as follows:

106.3.6 Retention of construction documents. One set of <u>approved</u> construction documents shall be retained by the code official <u>until final approval of the work covered therein for a period of not less than 180 days from date of completion of the permitted work, or as required by state or local laws.</u> One set of approved construction documents shall be returned to the applicant, and that said set shall be kept on the site of the building or work at all times during which the work authorized thereby is in progress.

PART V – IWUIC

Revise as follows:

106.8 Retention of plans. One set of approved plans, specifications and computations shall be retained by the code official for a period of not less than 90 <u>180</u> days from date of completion of the <u>permitted</u> work covered therein, or as <u>required by state or local laws</u>; and one set of approved plans and specifications shall be returned to the applicant, and said set shall be kept on the site of the building, use or work at all times during which the work authorized thereby is in progress.

PART VI – IFC

Revise as follows:

105.4.6 Retention of construction documents. One set of construction documents shall be retained by the code official until final approval of the work covered therein. for a period of not less than 180 days from date of completion of the permitted work, or as required by state or local laws. One set of approved construction documents shall be returned to the applicant, and said set shall be kept on the site of the building or work at all times during which the work authorized thereby is in progress.

Reason: Consistency and coordination among the I-Codes are cornerstones of the ICC Code Development Process. This holds true for not only the technical code provisions but also for the administrative code provisions as contained in Chapter 1 of all the I-Codes.

In response to concerns raised by the ICC membership since publication of the first editions of the I-Codes, the ICC Board established, for the 2006/2007 cycle, and extended, for the 2007/2008 cycle, the ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) to review Chapter 1 administrative provisions in the International Codes family and improve the correlation among the I-Codes through the code development process.

The AHC-Admin is submitting a series of code change proposals designed to provide consistent and correlated administrative provisions among the I-Codes. The intent of this correlation effort is not necessarily to have absolutely identical text in each of the I-Codes but, rather, text that has the same intent in accomplishing the administrative tasks among the I-Codes.

This proposal focuses on the retention of construction documents and is being submitted by the AHC-Admin to correlate the IFGC, IMC, IPC, IPSDC, IWUIC and IFC with current Section 106.5 of the *International Building Code* and Section R106.5 of the *International Residential Code*.

It is not unusual for state laws to establish records retention criteria and the goal of this change is to not only make the I-Code family consistent with such laws but also to provide a minimum post-construction retention period since the months immediately following construction completion is typically when most disputes arise that depend on the construction documents for resolution.

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

PART I – IFGC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART II – IMC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART III – IPC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART IV – IPSDC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART V – IWUIC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART VI – IFC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

FG6–07/08 IFGC 106.4.7 (New); IMC 106.4.7 (New); IPC 106.5.7 (New); IPSDC 106.2.4 (New); IFC 105.4.4.1 (New)

Proponent: Rebecca Baker, Jefferson County, CO, Chair, ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin)

THESE PROPOSLAS ARE ON THE AGENDA OF THE IFGC, IMC, IPC, IPSDC AND IFC CODE DEVELOPMENT COMMITTEES AS FIVE SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

PART I – IFGC

Add new text as follows:

106.4.7 Previous approvals. This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

PART II – IMC

Add new text as follows:

106.4.7 Previous approvals. This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

PART III – IPC

Add new text as follows:

106.5.7 Previous approvals. This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

PART IV – IPSDC

Add new text as follows:

106.2.4 Previous approvals. This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

Add new text as follows:

105.4.4.1 Previous approvals. This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

Reason: Consistency and coordination among the I-Codes are cornerstones of the ICC Code Development Process. This holds true for not only the technical code provisions but also for the administrative code provisions as contained in Chapter 1 of all the I-Codes.

In response to concerns raised by the ICC membership since publication of the first editions of the I-Codes, the ICC Board established, for the 2006/2007 cycle, and extended, for the 2007/2008 cycle, the ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) to review Chapter 1 administrative provisions in the International Codes family and improve the correlation among the I-Codes through the code development process.

The AHC-Admin is submitting a series of code change proposals designed to provide consistent and correlated administrative provisions among the I-Codes. The intent of this correlation effort is not necessarily to have absolutely identical text in each of the I-Codes but, rather, text that has the same intent in accomplishing the administrative tasks among the I-Codes.

This proposal focuses on the continuity of the permit process and is being submitted by the AHC-Admin to correlate the IFGC, IMC, IPC, IPSDC and IFC with current Section 106.3.2 of the *International Building Code* and *International Existing Building Code*, current Section R106.3.2 of the *International Residential Code* and the change that was approved in the 2006/2007 cycle creating Section 106.11 of the *International Wildland-Urban Interface Code* (see Supplement to the International Codes/2007).

This provision would provide the code official with a useful tool to protect the continuity of permits issued under previous codes or code editions, as long as such permits are being actively executed subsequent to the effective date of the ordinance adopting this edition of the code.

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

PART I – IFGC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART II – IMC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART III – IPC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART IV – IPSI	DC			
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART V – IFC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

FG7–07/08 106.4.7 (New); IMC 106.4.7 (New); IPC 106.5.7 (New); IPSDC 106.3.7 (New)

Proponent: Rebecca Baker, Jefferson County, CO, Chair, ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin)

THESE PROPOSALS ARE ON THE AGENDA OF THE IFGC, IMC, IPC AND IPSDC CODE DEVELOPMENT COMMITTEES AS FOUR SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

PART I – IFGC

Add new text as follows:

106.4.7 Posting of permit. The permit or a copy shall be kept on the site of the work until the completion of the project.

PART II – IMC

Add new text as follows:

106.4.7 Posting of permit. The permit or a copy shall be kept on the site of the work until the completion of the project.

PART III – IPC

Add new text as follows:

106.5.7 Posting of permit. The permit or a copy shall be kept on the site of the work until the completion of the project.

PART IV - IPSDC

Add new text as follows:

106.3.7 Posting of permit. The permit or a copy shall be kept on the site of the work until the completion of the project.

Reason: Consistency and coordination among the I-Codes are cornerstones of the ICC Code Development Process. This holds true for not only the technical code provisions but also for the administrative code provisions as contained in Chapter 1 of all the I-Codes.

In response to concerns raised by the ICC membership since publication of the first editions of the I-Codes, the ICC Board established, for the 2006/2007 cycle, and extended, for the 2007/2008 cycle, the ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) to review Chapter 1 administrative provisions in the International Codes family and improve the correlation among the I-Codes through the code development process.

The AHC-Admin is submitting a series of code change proposals designed to provide consistent and correlated administrative provisions among the I-Codes. The intent of this correlation effort is not necessarily to have absolutely identical text in each of the I-Codes but, rather, text that has the same intent in accomplishing the administrative tasks among the I-Codes.

This proposal focuses on permit posting and is being submitted by the AHC-Admin to correlate the IFGC, IMC, IPC and IPSDC with Section 105.7 of the *International Building Code* and *International Existing Building Code*, Section R105.7 of the *International Residential Code*, Section 105.3.5 of the *International Fire Code* and Section 105.9 of the *International Wildland-Urban Interface Code*.

The provision would provide the code official with a useful administrative tool by requiring the permit to be posted and available on the jobsite so that inspector entries can be made thereon and to provide evidence to anyone needing it that the project has been duly authorized.

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

PART I – IFGC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART II – IMC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART III – IPC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART IV – IPS	DC			
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

FG8-07/08 202 (New)

Proponent: James Ranfone, representing American Gas Association

Add new definition as follows:

SECTION 202 GENERAL DEFINITIONS

BONDING JUMPER. A conductor installed to electrically connect metallic gas piping to the grounding electrode system.

Reason: The IFGC lacks a definition for "Bonding Jumper." The extracted section 310 Electrical Bonding is being revised in the 2009 National Fuel Gas Code and will require specific CSST bonding coverage. The definition is necessary to provide clarity to code users on this coverage. The definition is consistent with the definition in the 2009 National Fuel Gas Code.

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

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

FG9-07/08

202 (New)

Proponent: James Ranfone, representing American Gas Association

Add new definition as follows:

SECTION 202 GENERAL DEFINITIONS

GROUNDING ELECTRODE. An electrically conductive terminal that provides an electrical connection to the earth.

Reason: The IFGC lacks a definition for Grounding Electrode. The extracted section 310 Electrical Bonding is being revised in the 2009 National *Fuel Gas Code* and will require specific CSST bonding coverage. The definition is necessary to provide clarity to code users on this coverage. The definition is consistent with the definition in the 2009 National Fuel Gas Code.

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

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

FG10–07/08 202 (New), Chapter 8 (New)

Proponent: James Ranfone, representing American Gas Association

1. Add new definitions as follows:

SECTION 202 (IFGC) GENERAL DEFINITIONS

COMBUSTIBLE MATERIAL. A material or assembly constructed of one or more components or materials that are not defined as noncombustible.

NONCOMBUSTIBLE MATERIAL. A material that, in the form in which it is used and under the conditions anticipated, will not ignite, burn, support combustion, or release flammable vapors when subjected to fire or heat. Materials that are reported as passing ASTM E 136, are considered to be noncombustible materials.

2. Add standard to Chapter 8 as follows:

ASTM

E136-04 Test Method for Behavior of Materials in a Vertical Tube Furnace at 750° C

Reason: The IFGC uses the terms "combustible material" and "noncombustible material" (for example, see section 308) but lacks definitions. The definition for "noncombustible material" is taken from the 2009 National Fuel Gas Code.

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

Public Hearing: Comm	ittee: AS	AM	D
Assem	ibly: ASF	AMF	DF

FG11-07/08 202 (New), Chapter 8 (New)

Proponent: Guy Tomberlin, Fairfax County, VA, representing the Virginia Plumbing and Mechanical Inspectors Association and Virginia Building and Code Officials Association

1. Add new definition as follows:

SECTION 202 (IFGC) GENERAL DEFINITIONS

NONCOMBUSTIBLE MATERIALS. Materials that, when tested in accordance with ASTM E 136, have at least three of four specimens tested meeting all of the following criteria:

- 1. The recorded temperature of the surface and interior thermocouples shall not at any time during the test rise more than 54°F (30°C) above the furnace temperature at the beginning of the test.
- 2. There shall not be flaming from the specimen after the first 30 seconds.
- 3. If the weight loss of the specimen during testing exceeds 50 percent, the recorded temperature of the surface and interior thermocouples shall not at any time during the test rise above the furnace air temperature at the beginning of the test, and there shall not be flaming of the specimen.

2. Add standard to Chapter 8 as follows:

ASTM

E136-04 Test Method for Behavior of Materials in a Vertical Tube Furnace at 750° C

Reason: This is not a new regulation. In fact it is the definition that many localities utilize for enforcement of the current combustible provisions found in the IFGC, however some do not. This causes inconsistent application and non-uniform enforcement of the current provisions. This proposal was submitted last code cycle; unfortunately the opposition was based on the wording of the definition. This was a clear example of "missing the forest for the trees." This is the exact wording from the IMC chapter 2 definitions. The IMC has many more references to combustible issues than the IFGC and this definition serves the many applications very well. Another important fact I must point out is that all of the fuel gas provisions were actually located in the 1996 edition of the IMC before the first IFGC was ever published. Absolutely no testimony has been provided that indicates that there are any problems associated with the use of this term to evaluate combustible issues related to fuel gas installations. The IFGC refers to combustible in several sections (Section 308 for example) but fails to provide guidance as to exactly what is combustible. This is a much needed addition to correct an omission that has been overlooked since the IFGC's inception.

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

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

FG12-07/08 202 (New)

Proponent: James Ranfone, representing American Gas Association

Add new definition as follows:

SECTION 202 (IFGC) GENERAL DEFINITIONS

EXTERIOR MASONRY CHIMNEYS. Masonry chimneys exposed to the outdoors on one or more sides below the roof line.

Reason: The IFGC contains venting tables 504.3(6a), 504.3(6b), 504.3(7a) and 504.3(7b) applicable to exterior masonry chimneys but the code lacks a definition. The proposed definition is taken from the 2006 National Fuel Gas Code (definition 3.3.17.1). The new definition would clarify IFGC code provisions.

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

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

FG13-07/08 202 (New)

Proponent: James Ranfone, representing American Gas Association

Add new definition as follows:

SECTION 202 (IFGC) GENERAL DEFINITIONS

LEAK CHECK. An operation performed on a gas piping system to verify that the system does not leak.

Reason: Add a definition for "Leak Check." The IFGC in Section 406.6.3 provides coverage for performing a leak check but the code lacks a definition. The definition is taken from the 2009 *National Fuel Gas Code*.

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

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

FG14-07/08

202

Proponent: James Ranfone, representing American Gas Association

Revise definition as follows:

SECTION 202 (IFGC) GENERAL DEFINITIONS

OUTLET. A threaded connection or bolted flange in a pipe system to which a gas-burning appliance is attached. The point at which a gas-fired appliance connects to the gas piping system.

Reason: The existing definition of "outlet" would exclude laboratory hose barb and convenience outlets. The revision would make the definition of Outlet apply to all types of outlet types. The new definition would clarify IFGC code provisions.

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

FG15-07/08

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

Revise definition as follows:

SECTION 202 (IFGC) GENERAL DEFINITIONS

ROOM LARGE IN COMPARISON WITH SIZE OF THE APPLIANCE (Supp). Rooms having a volume equal to at least 12 times the total volume of a furnace, water heater or air-conditioning appliance and at least 16 times the total volume of a boiler. Total volume of the appliance is determined from exterior dimensions and is to include fan compartments and burner vestibules, when used. When the actual ceiling height of a room is greater than 8 feet (2438 mm), the volume of the room is figured on the basis of a ceiling height of 8 feet (2438 mm).

Reason: This criterion is actually already included within the installation instructions of most water heaters not listed for installation in closets or alcoves. Adding this text to the IFGC increases usability and lends to consistency with the water heater manufacturer's recommendations. This also is consistent with the action taken last code cycle in the IMC (see M18-06/07). Further, it only makes sense to identify the minimum size space a water heater can be installed in where the water heater is not listed for closet or alcove installation, exactly the same as other gas appliances.

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

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

FG16-07/08 303.3

Proponent: Chuck King, Town of Oro Valley, AZ, representing Arizona Building Officials

Revise as follows:

303.3 Prohibited locations. Appliances shall not be located in sleeping rooms, bathrooms, toilet rooms, storage <u>clothes</u> 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.

Reason: Installing appliances in closets has been the preferred location for an untold number of years. Using the verbiage of "storage closets" as a prohibition is very open ended and subject to a wide range of interpretation. The primary purpose of **any** closet is to provide storage of some kind. In the IRC "closet" is defined as "a small room or chamber used for **storage**". If this literal interpretation were used, appliances would be prohibited from every closet. It is understandable why fuel-burning appliances are prohibited from the other rooms that are listed, since they could create a serious risk to the occupants. In addition clothes closets provide a high fuel source and would pose a significant life safety hazard. This has been demonstrated in the IRC section E3605.7 #3 and NEC section 240.24(D) as hazardous locations.

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

FG17-07/08 306.3, 306.4; IMC 306.3, 306.4; IRC M1305.1.3, M1305.1.4

Proponent: Guy McMann, Jefferson County, CO, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO)

THESE PROPOSALS ARE ON THE AGENDA OF THE IFGC, IMC AND THE IRC-MECHANICAL CODE DEVELOPMENT COMMITTEES AS THREE SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IFGC

Revise as follows:

[M] 306.3 (Supp) Appliances in attics. Attics containing appliances requiring access shall be provided with an opening and unobstructed passageway large enough to allow removal of the largest component of the appliance. The passageway shall not be less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096 mm) in length when measured along the centerline of the passageway from the opening to the appliance. The passageway shall have continuous solid flooring not less than 24 inches (610 mm) wide. A level service space not less than 30 inches (762 mm) wide shall be present at the front or service side of the appliance. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), where such dimensions are and large enough to allow removal of the largest component of the appliance.

Exceptions:

- 1. The passageway and level service space are not required where the appliance is capable of being serviced and removed through the required opening.
- 2. Where the passageway is not less than 6 feet (1829 mm) high for its entire length, the passageway shall be not greater than 50 feet (15 250 mm) in length.

[M] 306.4 (Supp) Appliances under floors. Under-floor spaces containing appliances requiring access shall be provided with an access opening and unobstructed passageway large enough to remove the largest component of the appliance. The passageway shall not be less than 30 inches (762 mm) high and 22 inches (559 mm) wide, nor more than 20 feet (6096 mm) in length when measured along the centerline of the passageway from the opening to the appliance. A level service space not less than 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side of the appliance. If the depth of the passageway or the service space exceeds 12 inches (305 mm) below the adjoining grade, the walls of the passageway shall be lined with concrete or masonry extending 4 inches (102 mm) above the adjoining grade and having sufficient lateral-bearing capacity to resist collapse. The clear access opening dimensions shall be a minimum of 22 inches by 30 inches (559 mm by 762 mm), where such dimensions are and large enough to allow removal of the largest component of the appliance.

Exceptions:

- 1. The passageway is not required where the level service space is present when the access is open and the appliance is capable of being serviced and removed through the required opening.
- 2. Where the passageway is not less than 6 feet high (1829 mm) for its entire length, the passageway shall not be limited in length.

PART II – IMC

Revise as follows:

306.3 Appliances in attics. Attics containing appliances requiring access shall be provided with an opening and unobstructed passageway large enough to allow removal of the largest appliance. The passageway shall not be less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096 mm) in length measured along the center line of the passageway from the opening to the appliance. The passageway shall have continuous solid flooring not less than 24 inches (610 mm) wide. A level service space not less than 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side of the appliance. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), where such dimensions are and large enough to allow removal of the largest appliance.

Exceptions:

- 1. The passageway and level service space are not required where the appliance is capable of being serviced and removed through the required opening.
- 2. Where the passageway is unobstructed and not less than 6 feet (1829 mm) high and 22 inches wide for its entire length, the passageway shall be not greater than 50 feet (15 250 mm) in length.

306.4 Appliances under floors. Underfloor spaces containing appliances requiring access shall be provided with an access opening and unobstructed passageway large enough to remove the largest appliance. The passageway shall not be less than 30 inches (762 mm) high and 22 inches (559 mm) wide, nor more than 20 feet (6096 mm) in length measured along the centerline of the passageway from the opening to the appliance. A level service space not less than 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side of the appliance. If the depth of the passageway or the service space exceeds 12 inches (305 mm) below the adjoining grade, the walls of the passageway shall be lined with concrete or masonry. Such concrete or masonry shall extend a minimum of 4 inches (102 mm) above the adjoining grade and shall have sufficient lateral-bearing capacity to resist collapse. The clear access opening dimensions shall be a minimum of 22 inches by 30 inches (559 mm by 762 mm), where such dimensions are and large enough to allow removal of the largest appliance.

Exceptions:

- 1. The passageway is not required where the level service space is present when the access is open and the appliance is capable of being serviced and removed through the required opening.
- 2. Where the passageway is unobstructed and not less than 6 feet high (1929 mm) and 22 inches wide for its entire length, the passageway shall not be limited in length.

PART III – IRC-M

Revise as follows:

M1305.1.3 Appliances in attics. Attics containing appliances requiring access shall be provided with an opening and a clear and unobstructed passageway large enough to allow removal of the largest appliance, but not less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096 mm) long when measured along the centerline of the passageway from the opening to the appliance. The passageway shall have continuous solid flooring in accordance with Chapter 5 not less than 24 inches (610 mm) wide. A level service space at least 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present along all sides of the appliance where access is required. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm) by 762 mm), where such dimensions are and large enough to allow removal of the largest appliance.

Exceptions:

- 1. The passageway and level service space are not required where the appliance can be serviced and removed through the required opening.
- 2. Where the passageway is unobstructed and not less than 6 feet (1829 mm) high and 22 inches (559 mm) wide for its entire length, the passageway shall be not more than 50 feet (15 250 mm) long.

M1305.1.4 Appliances under floors. Underfloor spaces containing appliances requiring access shall have an unobstructed passageway large enough to remove the largest appliance, but not less than 30 inches (762 mm) high and 22 inches (559 mm) wide, nor more than 20 feet (6096 mm) long when measured along the centerline of the passageway from the opening to the appliance. A level service space at least 30 inches (762 mm) deep and 30 inches (762 mm)wide shall be present at the front or service side of the appliance. If the depth of the passageway or the service space exceeds 12 inches (305 mm) below the adjoining grade, the walls of the passageway shall be lined with concrete or masonry extending 4 inches (102 mm) above the adjoining grade in accordance with Chapter 4. The rough-framed access opening dimensions shall be a minimum of 22 inches by 30 inches (559 mm by 762 mm), where the dimensions are and large enough to remove the largest appliance.

Exceptions:

- 1. The passageway is not required where the level service space is present when the access is open, and the appliance can be serviced and removed through the required opening.
- 2. Where the passageway is unobstructed and not less than 6 feet high (1929 mm) and 22 inches wide for its entire length, the passageway shall not be limited in length.

Reason: This language is inconsistent with that of the IMC and IRC. The intent is to provide relief in the size of the opening provided that the appliance can be removed through such a size; not to be dismantled in order to do so. All three documents need to be consistent in their approach; that the opening needs to be as large as the largest appliance, not the largest piece. The last sentence of each section fails to specify an access opening size where the opening is NOT large enough to allow removal of the appliance. The IMC and IRC text is revised to be consistent with the IFGC text. The text only implies that the openings might need to be larger than 20" x 30" based on an appliance size. The revision clarifies that both criteria apply.

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

Analysis: Sections 306.3 and 306.4 of the International Fuel Gas Code (IFGC) are designated as being under the purview of the IMC Committee, however, the primary revision in Part I is related only to the IFGC and will therefore be heard by the IFGC Committee.

PART I – IFGC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART II – IMC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART III – IRC	-M			
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

FG18-07/08 404.1

Proponent: James Ranfone, representing American Gas Association

Revise as follows:

404.1 (Supp) Prohibited locations. Piping shall not be installed in or through a ducted supply, return or exhaust, or a clothes chute, chimney or gas vent, dumbwaiter or elevator shaft. Piping installed downstream of the point of delivery shall not extend through any townhouse unit other than the unit served by such piping.

Reason: There is no justification to prohibit the installation of gas piping through townhouses. Banking meters in townhouse developments and running piping through basements/crawl spaces is more desirable since the meters/regulator sets would be located away from driveways where they could be subject to vehicle impact. Requiring meters to be set in the front of each townhouse (if banking is not allowed) could force meter sets to be installed near each individual driveways raising the possibility of vehicle impact. An alternative location in fenced back yards is also problematic since access would be limited in the event of an emergency.

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

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

FG19–07/08 404.4

Proponent: Guy McMann, Jefferson County, CO, representing the Colorado Association of Plumbing and Mechanical Officials (CAPMO)

Delete and substitute as follows:

404.4 Piping through foundation wall. Underground piping, where installed below grade through the outer foundation or basement wall of a building, shall be encased in a protective pipe sleeve. The annular space between the gas piping and the sleeve shall be sealed.

404.4 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.

Reason: There have been many cases throughout the country where explosions have occurred as a result of a gas leak that originates underground and made its way into the building. One of the reasons this occurs is because natural gas tends to follow the pipe in its ditch due to less resistance. Piping entering foundations below grade provides a path for gas to follow. The safety of residents should not be left up to how well a bead of caulking has been applied. Plastic piping is also subject to the same scenario, especially when the 8-inch burial depth is taken into consideration. Plastic will not hold up to common tools such as shovels, spades, picks and roto-tillers. Also think about expansive soils and the potential effect it can have on the piping. The heaving soil will have a devastating effect on a caulked sleeve. It's not uncommon to have a gas line snapped off completely at the foundation wall due to the overwhelming force of expansive soil. By only allowing the pipe to enter the building above grade will eliminate the likelihood that gas would enter the building. Life ,limb, property and the potential threat of explosion should not be determined by the integrity of a sealed joint alone. Depending how deep the ditch is, the weight of the back-fill alone could be significant enough to have an impact on a caulked joint. One should also consider that the joint could deteriorate over time.

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

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

FG20-07/08

404.4

Proponent: Guy Tomberlin, Fairfax County, VA, representing the Virginia Plumbing and Mechanical Inspectors Association and Virginia Building and Code Officials Association

Revise as follows:

404.4 Piping through foundation wall. Underground piping, where installed below grade through the outer foundation or basement wall of a building, shall be encased in a protective pipe sleeve. The annular space between the gas piping and the sleeve <u>and between the sleeve and the wall</u> shall be sealed.

Reason: Current text requires that the pipe be sealed to the sleeve but fails to require sealing of the sleeve to the building itself. Water and gas leakage could enter the building through the annular space between the sleeve and the wall.

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

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

FG21-07/08 404.4

Proponent: James Ranfone, representing American Gas Association

Revise as follows:

404.4 Piping through foundation wall. Underground piping, where installed below grade through the outer foundation or basement wall of a building, shall be encased in a protective pipe sleeve <u>or shall be protected by an approved device or method</u>. The annular space between the gas piping and the sleeve shall be sealed.

Reason: It is common field installation practice to core a concrete foundation wall and provide no sleeve. The proposed revision would allow specifically manufactured products that provide a seal and protection.

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

FG22-07/08 404.5.1 (New)

Proponent: James Ranfone, representing American Gas Association

Add new text as follows:

404.5.1 (IFGS) Tubing in hollow walls and partitions. Tubing installed inside walls or partitions without protection along its entire concealed length shall be installed in accordance with all of the following. This section shall not apply to tubing that only passes through wall or partition assemblies.

- 1. <u>Tubing shall be installed only horizontally or vertically.</u>
- 2. A steel striker barrier not less than 0.0508 in. (1.3 mm) thick, or equivalent, shall be installed between the tubing and the finished wall surface at concealed penetrations of plates, fire blocking, wall studs, and similar construction elements. The striker barrier shall extend not less than 4 inches (102 mm) above sole plates, below top plates and beyond each side of studs, fire blocking and similar construction elements.
- 3. Tubing shall be installed in single runs and shall not be rigidly secured.
- 4. Where the wall or partition contains batt-type insulation, such insulation shall not restrict the movement of the tubing.

Reason: The IFGC lacks code provisions when installing tubing inside hollow walls and partitions. This extract will help improve the code by adding important installation and safety requirements from the National Fuel Gas Code. The American Gas Association is asking the ICC membership whether this provision is necessary in the IFGC and to consider extracting section 7.3.4 from the 2009 National Fuel Gas Code.

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

Analysis: The text in this proposal is extracted from the National Fuel Gas Code (NFGC) (ANSI Z223.1) and has been editorially revised as necessary to make it conform to ICC style and format conventions. It is the intent of this proposal that the text be either accepted as is, without modification, or rejected. The proposed text is either a new section to both the NFGC and the IFGC or is a revision to a current NFGC section for which there is no corresponding section in the IFGC. If this text is accepted by the ICC membership, it will be placed into the IFGC and designated as "IFGS" text, meaning that such text is maintained by the ANSI Z223 (NFGC) Committee process, not the ICC code development process.

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

FG23-07/08 404.8.1 (New)

Proponent: Guy Tomberlin, Fairfax County, VA, representing the Virginia Plumbing and Mechanical Inspectors Association and Virginia Building and Code Officials Association

Add new text as follows:

404.8.1 Isolation. Metallic piping and metallic tubing that conveys fuel gas from an LP-gas storage container shall be provided with an approved dielectric fitting to electrically isolate the underground portion of the pipe or tube from the above ground portion that enters a building. Such dielectric fitting shall be installed above ground, outdoors.

Reason: Electrical isolation is currently required in this location for all federally regulated underground gas utilities. However LP systems do not typically fall under the guides of federally regulated authority. Now that bonding is clearly required for all CSST systems, this will prevent any potential fault back to an outside LP storage tank. Even though this situation does not cause a problem, some have pointed out that this application is not electrically isolated. This completely eliminates any speculation that underground gas piping might serve as a grounding electrode.

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

FG24-07/08 404.14.2, Chapter 8 (New)

Proponent: James Ranfone, representing American Gas Association

1. Revise as follows:

404.14.2 (Supp) Connections. Connections made outdoors and underground between metallic and plastic piping shall be made only with transition fittings conforming with ASTM D 2513 Category I, or ASTM F 1973 or ASTM F 2509.

2. Add standard to Chapter 8 as follows:

ASTM

<u>F 2509-06</u> <u>Standard Specification for Field-assembled Anodeless Riser Kits for Use on Outside Diameter</u> Controlled Polyethylene Gas Distribution Pipe and Tubing

Reason: Reduce code duplication by deleting the phrase "outdoors and underground" since section 404.14.1 already limits plastic pipe installations to outdoors and underground.

Add the standard ASTM F 2509, Standard Specification for Field-assembled Anodeless Riser Kits for Use on Outside Diameter Controlled Polyethylene Gas Distribution Pipe and Tubing, as an acceptable method to connect plastic to metallic pipe. The 2009 National Fuel Gas Code has also been revised to include ASTM F2509.

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, ASTM F2509-06, for compliance with ICC criteria for referenced standards given in Section 3.6 of Council Policy #CP28 will be posted on the ICC website on or before January 15, 2008.

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

FG25-07/08 407.2

Proponent: James Ranfone, representing American Gas Association

Revise as follows:

407.2 (Supp) Design and installation. Piping shall be supported with <u>metal</u> pipe hooks, metal pipe straps, <u>metal</u> bands, <u>metal</u> brackets, <u>er metal</u> hangers, <u>or building structural components</u>, suitable for the size of piping, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration. Piping shall be anchored to prevent undue strains on connected appliances and shall not be supported by other piping. Pipe hangers and supports shall conform to the requirements of MSS SP-58 and shall be spaced in accordance with Section 415. Supports, hangers, and anchors shall be installed so as not to interfere with the free expansion and contraction of the piping between anchors. All parts of the supporting equipment shall be designed and installed so they will not be disengaged by movement of the supported piping.

Reason: The revisions would clarify that metal piping supports and building structural components must be used to support gas piping. The current code only specifies that pipe straps be constructed of metal while not specifying what the remaining piping supports could be constructed from (which could include plastic). We believe the intent of this section was always to require that piping supports be made from metal.

Also, the revision would allow the use of building structural components to support gas piping. For example, laying piping across joists in an attic installation or installing gas piping through floor joists have been an acceptable and widely used method that is not currently allowed by the code. The National Fuel Gas Code Committee has adopted a similar change for the 2009 NFGC edition.

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

FG26-07/08 408.4

Proponent: James Ranfone, representing American Gas Association

Revise as follows:

408.4 (Supp) Sediment trap. Where a sediment trap is not incorporated as part of the appliance, a sediment trap shall be installed downstream of the appliance shutoff valve as close to the inlet of the appliance as practical. The sediment trap shall be either a tee fitting having a capped nipple of any length installed <u>vertically</u> in the bottommost opening of the tee or other device approved as an effective sediment trap. Illuminating appliances, ranges, clothes dryers and outdoor grills need not be so equipped.

Reason: For the capped nipple to be effective as a sediment trap, it must be installed in a downward direction to offer a collection point for any debris.

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

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

FG27-07/08 409.5.3

Proponent: Bryan Popp, Dormont Manufacturing Company

Delete without substitution:

409.5.3 (Supp) Located at manifold. Where the appliance shutoff valve is installed at a manifold, such shutoff valve shall be located within 50 feet (15 240 mm) of the appliance served 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 Sections 401 through 408.

Reason: This provision is not consistent with the scope Section 101.2.2, the definition of "piping system" (Chapter 2) and the Valve isolation provisions of Section 406.3.4. The existing language of Section 409.5.3 and the definition of "piping system" and the valve isolation provision combined enable users of the *International Fuel Gas Code* (IFGC) to avoid pressure testing large sections of fuel gas piping.

The existing language of Section 409.5.3 can be misapplied in the field to enable appliance shut off valves to be installed remotely from appliances (often between floor joists in basements). These remote locations may be dispersed throughout the structure and not in "one location" as described by the authors of the *National Fuel Gas Code* 2006 edition. These remotely located appliances shut off valves may become concealed by subsequent basement finishing projects.

There does not appear to be any provision in the existing language that requires these remotely located appliance shutoff valves to be installed in the same unit in multi-unit buildings.

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

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

FG28-07/08

410.1

Proponent: Joseph Underwood, representing himself

Revise as follows:

410.1 Pressure regulators. A line pressure regulator shall be installed where the appliance is designed to operate at a lower pressure than the supply pressure. Line gas pressure regulators shall be listed as complying with ANSI Z21.80. Access shall be provided to pressure regulators. Pressure regulators shall be protected from physical damage. Regulators installed on the exterior of the building shall be approved for outdoor installation. <u>Regulators installed</u> outdoors shall be designed, installed or protected so that their operation will not be affected by the elements including freezing rain, sleet, snow, ice, mud and debris.

Reason: The purpose of this proposal is to provide pressure regulators installed outdoors with protection from the elements and other environmental factors that could affect their safe operation. As the code is currently written Section 410 fails to address the protection of pressure regulators installed outdoors from the elements. Adding the proposed text will help provide this protection. IFGC Section 413 requires this protection for regulators installed outdoors. Although Section 413 pertains to high pressure systems, atmospherically controlled pressure regulators regardless of their operating pressures operate on the same basic principles and should therefore be protected likewise.

NFPA 58 Liquefied Petroleum Gas Code 3.2.12.4 currently requires this protection. Many regulators are interchangeable between Natural gas and LP gas, yet the IFGC does not address this protection.

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

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

FG29-07/08 410.4 (New), Chapter 8 (New)

Proponent: Seth W. Mackay-Smith, UMAC, Inc. representing GasBreaker, Inc.

1. Add new text as follows:

410.4 Excess flow valves. Automatic excess flow gas shutoff valves shall be listed for the application in accordance with ANSI Z21.93/CSA 6.30 and shall be sized and installed in accordance with the manufacturer's installation instructions.

2. Add standard to Chapter 8 as follows:

ANSI

Z21.93/CSA 6.30-08 Standard for Excess Flow Valves for Natural and LP Gas up to Pressures of 5 psig

Reason: These safety devices can be used on the fuel gas supply system to reduce the possibility of large gas leaks from pipe disconnects or breakage. The devices meet appropriate standards such as CSA 3-92 and ANSI/CSA Z21.93 and should be recognized when they do so. Some local jurisdictions are already installing the valves in residences and standardization and guidance from the national code body is appropriate. EFVs are already recognized in the 2006 UPC. Finally, this language has already been approved and recommended by the NFPA Piping Panel.

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, ANSI Z21.93/CSA 6.30-08, for compliance with ICC criteria for referenced standards given in Section 3.6 of Council Policy #CP28 will be posted on the ICC website on or before January 15, 2008.

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

FG30-07/08 410.4 (New), Chapter 8 (New)

Proponent: Sidney L. Cavanaugh, Cavanaugh Consulting, representing Brass Craft

1. Add new text as follows:

410.4 Excess flow valves. Automatic excess flow gas shutoff valves shall be listed and approved and shall be sized for the maximum gas flow anticipated in the pipes in which such valves are installed. Such valves shall be listed as complying with ANSI Z21.93, ASTM FXXXX or ASTM FXXXX.

2. Add standards to Chapter 8 as follows:

ANSI

Z21.93/CSA	6.30-08

American National Standard/CSA Standard for Excess Flow Valves for Natural and LP Gas up to Pressures of 10 psig

ASTM

<u>ASTM FXXXX</u>	Test Methods for Performance of Low Pressure (5 psi max) Excess Flow Valves
ASTM FXXXX	Specification for Low Pressure (5 psi max) Excess Flow Valves for Fuel Gas Systems

Reason: These devices increase the protection of health and safety of consumers and meet appropriate standards such as CSA 3-92 and ANSI/CSA Z21.93. These safety devices can be used on the fuel gas supply system to eliminate potential explosions as well as added fuel sources to existing fires should they occur. These valves should be recognized in the IFGC as they are currently listed by all model code agencies in North America and are recognized by the 2006 UPC. It is also a companion to other code changes.

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

Analysis: A review of the standards proposed for inclusion in the code, ANSI Z21.93/CSA 6.30-08, ASTM XXXX and ASTM XXXX, for compliance with ICC criteria for referenced standards given in Section 3.6 of Council Policy #CP28 will be posted on the ICC website on or before January 15, 2008. The ASTM standards lack number designations.

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

FG31-07/08 202 (New)

Proponent: Sidney L. Cavanaugh, Cavanaugh Consulting, representing Brass Craft

Add new definition as follows:

SECTION 202 (IFGC) GENERAL DEFINITIONS

EXCESS FLOW VALVE. A valve designed to close when the fuel gas passing through it exceeds a prescribed flow rate.

Reason: This definition is needed to recognize necessary safety devices which can be used on the fuel gas supply system to eliminate potential explosions as well as added fuel sources to existing fires should they occur. It is also a companion to other code changes. Similar wording has been accepted in the 2006 UPC.

Also this is the same definition that appears in NFPA 58 "Storage & Handling of LP Gas".

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

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

FG32-07/08 411.1.1.1 (New)

Proponent: Bryan Popp, Dormont Manufacturing Company

Add new text as follows:

411.1.1 Commercial cooking appliance gas supply orientation. The building gas supply branch connection for commercial cooking appliances shall be located and oriented as follows:

- <u>1.</u> <u>The building gas supply branch connection shall be oriented vertically downward.</u>
- 2. The bottom of the building gas supply branch connection shall be located not less than 36 inches (914 mm) and not more than 42 inches (1067 mm) above the floor.
- 3. <u>The building gas supply branch connection shall be located directly behind the appliance it serves and not obstructed by any other appliance or equipment.</u>

Reason: The proposed language improves safety of commercial cooking installations by:

- Standardizing the gas supply branch connection locations,
- Eliminating random configurations that sacrifice safety, and

Ensuring the manufacturer's installation instructions are followed.

The proposed language accommodates all acceptable connection methods and appliance inlet configurations.

Similar language is proposed in the current cycles of the National Fuel Gas Code, the Uniform Plumbing Code and the Uniform Mechanical Code.

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

FG33-07/08 411.1.3.1

Proponent: Bryan Popp, Dormont Manufacturing Company

Revise as follows:

411.1.3.1 (Supp) Maximum length. Connectors shall have an overall length not to exceed 3 feet (914 mm), except for range and domestic clothes dryer connectors, which shall not exceed 6 feet (1829 mm) in overall length. Measurement shall be made along the centerline of the connector. Only one connector shall be used for each appliance.

Exception: Rigid metallic piping used to connect an appliance to the piping system shall be permitted to have a total length greater than $3 \underline{6}$ feet ($914 \underline{1829}$ mm), provided that the connecting pipe is sized as part of the piping system in accordance with Section 402 and the location of the appliance shutoff valve complies with Section 409.5.

Reason: The existing language is not consistent with Sections 409.5 and 411.1.

Connectors listed to Z21.24, Z21.69 and Z21.75 are permitted to be up to 6 feet in length according to these standards. Listed connectors of lengths up to 6 feet have an excellent safety record.

Removing the existing language adds clarity to the standard and removes overly restrictive language.

Revising the existing language eliminates an unnecessary difference between the International Fuel Gas Code and the National Fuel Gas Code.

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

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

FG34-07/08

Proponent: Guy Tomberlin, Fairfax County, VA, representing the Virginia Plumbing and Mechanical Inspectors Association; and Virginia Building and Code Officials Association

Revise as follows:

411.1.3.3 (Supp) Prohibited locations and penetrations. Connectors shall not be concealed within, or extended through, walls, floors, partitions, ceilings or appliance housings.

Exceptions:

- Connectors constructed of materials allowed for piping systems in accordance with Section 403 shall be permitted to pass through walls, floors, partitions and ceilings where installed in accordance with Section 409.5 409.5.2 or 409.5.3.
- 2. Rigid steel pipe connectors shall be permitted to extend through openings in appliance housings.
- 3. Fireplace inserts that are factory equipped with grommets, sleeves or other means of protection in accordance with the listing of the appliance.
- 4. Semirigid tubing and listed connectors shall be permitted to extend through an opening in an appliance housing, cabinet or casing where the tubing or connector is protected against damage.

Reason: This proposal simply corrects an unintended consequence resulting from the approval of two proposals last cycle.

The intent of Exception #1 when it was approved in FG40-06/07 was to reference the exception to Section 409.5. However, FG32-06/07 relocated that exception to become a new stand-alone Section 409.5.2. Therefore, Exception #1 of 411.1.3.3 needs to reference Section 409.5.2 instead of 409.5. The new Section 409.5.3 also allows for remote shutoff valves and needs to be referenced for the same reason that Section 409.5.2 was intended to be referenced.

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

FG35-07/08 411.3 (New)

Proponent: James Ranfone, representing American Gas Association

Add new text as follows:

411.3 Suspended low-intensity infrared tube heaters. Suspended low-intensity infrared tube heaters shall be connected to the building piping system by means of an appliance connector listed as complying with ANSI Z21.24. The connector shall be installed as specified by the tube heater manufacturer's instructions.

Reason: The CAN/CSA B149.1 committee reviewed information on the failure of metal semi rigid tube connectors on radiant tube heaters and concluded that a flexible connector capable of adjusting to the constant vibration and expansion/contraction characteristics of the radiant tube heater is desirable. This flexibility would help prevent cracks, leaks, or fractures due to work hardening of semi rigid tubing. The radiant heater tube standard, ANSI Z83.20, has been revised to include installation instructions for Z21.24 connectors. A similar revision has been accepted by the National Fuel Gas Code committee for the 2009 edition.

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

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

FG36-07/08 503.4.1.1 (New)

Proponent: James Ranfone, representing American Gas Association

Add new text as follows:

503.4.1.1 (IFGS) Plastic vent joints. Plastic pipe and fittings used to vent appliances shall be installed in accordance with the appliance manufacturer's installation instructions. Where a primer is required, it shall be of a contrasting color.

Reason: The installation of plastic venting system joints must be made in accordance with the manufacturer's installation instructions. This extract will help improve the code by adding important installation and safety requirements from the *National Fuel Gas Code*. The American Gas Association is asking the ICC membership whether this provision is necessary in the IFGC and to consider extracting Section 12.5.3 from the 2009 *National Fuel Gas Code*.

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

Analysis: The text in this proposal is extracted from the *National Fuel Gas Code* (NFGC) (ANSI Z223.1) and has been editorially revised as necessary to make it conform to ICC style and format conventions. It is the intent of this proposal that the text be either accepted as is, without modification, or rejected. The proposed text is either a new section to both the NFGC and the IFGC or is a revision to a current NFGC section for which there is no corresponding section in the IFGC. If this text is accepted by the ICC membership, it will be placed into the IFGC and designated as "IFGS" text, meaning that such text is maintained by the ANSI Z223 (NFGC) Committee process, not the ICC code development process.

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

FG37-07/08 503.6.13 (New)

Proponent: James Ranfone, representing American Gas Association

Add new text as follows:

503.6.13 (IFGS) Fastener penetrations. Screws, rivets and other fasteners shall not penetrate the inner wall of double wall gas vents.

Reason: Manufacturers of double wall Type B vents prohibit the use of screws and rivets from penetrating the inner wall. This extract will help improve the code by adding important installation and safety requirements from the National Fuel Gas Code. The American Gas Association is asking the ICC membership whether this provision is necessary in the IFGC and to consider extracting section 12.7.1 (4) from the 2009 National Fuel Gas Code.

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

Analysis: The text in this proposal is extracted from the National Fuel Gas Code (NFGC) (ANSI Z223.1) and has been editorially revised as necessary to make it conform to ICC style and format conventions. It is the intent of this proposal that the text be either accepted as is, without modification, or rejected. The proposed text is either a new section to both the NFGC and the IFGC or is a revision to a current NFGC section for which there is no corresponding section in the IFGC. If this text is accepted by the ICC membership, it will be placed into the IFGC and designated as "IFGS" text, meaning that such text is maintained by the ANSI Z223 (NFGC) Committee process, not the ICC code development process.

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

FG38-07/08 503.7.4 (New)

Proponent: James Ranfone, representing American Gas Association

Add new text as follows:

503.7.4 (IFGS) Prohibited use. Single-wall metal pipe shall not be used as a vent in dwellings and residential occupancies.

Reason: Single wall vents are not suitable for residential applications. This extract will help improve the code by adding important installation and safety requirements from the *National Fuel Gas Code*. The American Gas Association is asking the ICC membership whether this provision is necessary in the IFGC and to consider extracting Section 12.8.4.1 from the 2009 *National Fuel Gas Code*.

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

Analysis: The text in this proposal is extracted from the *National Fuel Gas Code* (NFGC) (ANSI Z223.1) and has been editorially revised as necessary to make it conform to ICC style and format conventions. It is the intent of this proposal that the text be either accepted as is, without modification, or rejected. The proposed text is either a new section to both the NFGC and the IFGC or is a revision to a current NFGC section for which there is no corresponding section in the IFGC. If this text is accepted by the ICC membership, it will be placed into the IFGC and designated as "IFGS" text, meaning that such text is maintained by the ANSI Z223 (NFGC) Committee process, not the ICC code development process.

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

FG39-07/08 503.8.1 (New)

Proponent: James Ranfone, representing American Gas Association

Add new text as follows:

503.8.1 (IFGS) Venting system termination prohibition. Appliance vents shall not discharge into any space enclosed by screens having openings smaller than 1/4 in. mesh.

Reason: Venting into a screened space that is enclosed in extra fine screening may prevent combustion products from readily dispersing. This extract will help improve the code by adding important installation and safety requirements from the *National Fuel Gas Code*. The American Gas Association is asking the ICC membership whether this provision is necessary in the IFGC and to consider extracting section 12.2.4 from the 2009 *National Fuel Gas Code*.

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

Analysis: The text in this proposal is extracted from the National Fuel Gas Code (NFGC) (ANSI Z223.1) and has been editorially revised as necessary to make it conform to ICC style and format conventions. It is the intent of this proposal that the text be either accepted as is, without modification, or rejected. The proposed text is either a new section to both the NFGC and the IFGC or is a revision to a current NFGC section for which there is no corresponding section in the IFGC. If this text is accepted by the ICC membership, it will be placed into the IFGC and designated as "IFGS" text, meaning that such text is maintained by the ANSI Z223 (NFGC) Committee process, not the ICC code development process.

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

FG40-07/08 503.10.4.1 (New)

Proponent: James Ranfone, representing American Gas Association

Add new text as follows:

503.10.4.1 (IFGS) Two or more openings. Where two or more openings are provided into one chimney flue or vent, the openings shall be at different levels, or the connectors shall be attached to the vertical portion of the chimney or vent at an angle of 45 degrees or less relative to the vertical.

Reason: Vent connectors entering a single vent on the same level need to be installed in such a manner as to prevent undue flow turbulence. This extract will help improve the code by adding important installation and safety requirements from the National Fuel Gas Code. The American Gas Association is asking the ICC membership whether this provision is necessary in the IFGC and to consider extracting section 12.11.4.1 from the 2009 National Fuel Gas Code.

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

Analysis: The text in this proposal is extracted from the National Fuel Gas Code (NFGC) (ANSI Z223.1) and has been editorially revised as necessary to make it conform to ICC style and format conventions. It is the intent of this proposal that the text be either accepted as is, without modification, or rejected. The proposed text is either a new section to both the NFGC and the IFGC or is a revision to a current NFGC section for which there is no corresponding section in the IFGC. If this text is accepted by the ICC membership, it will be placed into the IFGC and designated as "IFGS" text, meaning that such text is maintained by the ANSI Z223 (NFGC) Committee process, not the ICC code development process.

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

FG41-07/08 503.16 (New)

Proponent: James Ranfone, representing American Gas Association

Add new text as follows:

503.16 (IFGS) Outside wall penetrations. Where vents, including those for direct-vent appliances, penetrate outside walls of buildings, the annular spaces around such penetrations shall be permanently sealed using approved materials to prevent entry of combustion products into the building.

Reason: Sealing annular spaces around vent terminations for side wall vented appliances must be made with method/materials that will hold up over time to prevent combustion products from entering the living space. This extract will help improve the code by adding important installation and safety requirements from the National Fuel Gas Code. The American Gas Association is asking the ICC membership whether this provision is necessary in the IFGC and to consider extracting section 12.9.4 from the 2009 National Fuel Gas Code.

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

Analysis: The text in this proposal is extracted from the National Fuel Gas Code (NFGC) (ANSI Z223.1) and has been editorially revised as necessary to make it conform to ICC style and format conventions. It is the intent of this proposal that the text be either accepted as is, without modification, or rejected. The proposed text is either a new section to both the NFGC and the IFGC or is a revision to a current NFGC section for which there is no corresponding section in the IFGC. If this text is accepted by the ICC membership, it will be placed into the IFGC and designated as "IFGS" text, meaning that such text is maintained by the ANSI Z223 (NFGC) Committee process, not the ICC code development process.

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

FG42 -07/08 505.1.1

Proponents: Bruce Swiecicki, National Propane Gas Association; James Ranfone, representing American Gas Association

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. 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.

Exceptions:

- 1. 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.
- 2. An interlock between the cooking appliance(s) and the exhaust hood system shall not be required for appliances that are of the manually operated type and are factory equipped with standing pilot burner ignition systems.

Reason (Swiecicki): A properly designed commercial kitchen ventilation system complying with Chapter 5 adequately addresses the exhausting of flue gases and greasy vapors in commercial kitchens. However, requiring manually operated commercial cooking equipment equipped with standing pilot burner ignition systems to be interlocked with a commercial kitchen exhaust system is both unnecessary and it presents a potential safety hazard. This proposal improves the level of safety associated with operating this equipment.

To comply with the interlock requirement, it will be necessary to perform field modifications of commercial cooking appliances that have standing pilots. Not only can there be significant safety risks when doing so, but the potential to violate the listing agreement between a testing laboratory/inspection agency and the manufacturer of the commercial cooking equipment is a very real concern. A violation of the listing would disqualify the equipment from meeting the installation requirements in Section 305.1.

The National Fuel Gas Code does not require the interconnection of manually operated, pilot lighted commercial cooking equipment with the commercial kitchen exhaust system. Formal Interpretation 54-02-01 is being issued to clarify that such interconnection is not required. Another issue associated with the relighting of gas pilots is proper training. Commercial cooking staff is not necessarily trained to safely maintain gas equipment. The lighting of pilots would require such training and should only be done by qualified individuals. Some restaurants would have to relight the pilot several times per day if the appliance is shut down between serving times.

The current listing requirement in ANSI Z83.11/CGA1.8, Gas Food Service Equipment, allows for 0.08 % corrected CO emissions. This is the same performance level that is present in Z21.1 Household Cooking Gas Appliances. Testing is performed without a hood or venting to exhaust vapors. Based on the similarity of requirements between commercial and residential cooking equipment, and because residential cooking equipment is not required to have an exhaust system installed, it is reasonable to assume that the commercial kitchen exhaust is used primarily to exhaust noxious fumes and greasy vapors, other than carbon monoxide. That being the case, when the cooking staff begins using manually operated commercial cooking equipment, they will recognize the need to start the kitchen exhaust equipment to remove those noxious fumes and greasy vapors.

Please See NFPA Formal Interpretation 54-02-01. Reference 12.4.4.2

Question 1: Is it the intent of 12.4.4.2 to require pilot operated commercial cooking appliances that utilize a ventilation hood, to be interlocked with the ventilation hood?

Answer: No.

Question 2: Are commercial cooking appliances which have pilots considered by NFPA 54 to be automatically operated? Answer: No. Issue Edition: 2002

Effective Date: July 17, 2007

Reason (Ranfone): The Z83/CSA Joint Gas Food Service Equipment Technical Advisory Group (TAG) supports the inclusion of the exception. The TAG is made up of representatives of most major food service equipment manufacturers in North America, responsible for updating ANSI Z83.11/CSA 1.8, *Gas Food Service Equipment*. The TAG states "We believe that the exception is needed to help ensure that there are no field alterations to food service equipment that would void the design certification of the equipment or create an unsafe condition."

Manually operated cooking appliances in a commercial setting are in operation when kitchen staff is present. Any concerns that the exhausting system is not operating when these appliances are in use would be readily apparent by the staff and corrective action undertaken. No evidence was provided that kitchen personnel have been harmed in installations without an interlock. An interlock would require the daily lighting of pilot lights on appliances that were not designed for such daily lighting and may increase the potential for injuries associated with such activities. Commercial kitchen cooking appliances often incorporate heavy components not meant for routine dismantlement for access to pilot lights or have pilot lights in more difficult to reach locations than equipment specially designed for routine lighting.

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

FG43-07/08 616.1, Chapter 8 (New)

Proponent: Bob Eugene, Underwriters Laboratories Inc

1. Revise as follows:

616.1 Powered equipment. Permanently installed equipment powered by internal combustion engines and turbines shall be installed in accordance with the manufacturer's installation instructions and NFPA 37. <u>Stationary engine</u> generator assemblies shall meet the requirements of UL 2200.

2. Add standard to Chapter 8 as follows:

UL

2200-04 Stationary Engine Generator Assemblies

Reason: Reason: UL 2200 is the ANSI standard used to evaluate stationary engine generator assemblies for this application. This coordinates with the action taken on M114-06/07 for IMC Section 915.1.

IMC 915.1 (Supp) General. The installation of liquid-fueled stationary internal combustion engines and gas turbines, including exhaust, fuel storage and piping, shall meet the requirements of NFPA 37. Stationary engine generator assemblies shall meet the requirements of UL 2200.

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

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

FG44-07/08 616.2 (New)

Proponent: James Ranfone, representing American Gas Association

Add new text as follows:

616.2 Gas supply connection. Equipment powered by internal combustion engines and turbines shall not be rigidly connected to the gas supply piping.

Reason: Internal combustion engines and turbines may have excessive vibration and should be connected to the gas supply by a non-rigid connection.

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

Public Hearing: Cor	nmittee:	AS	AM	D
Ass	embly:	ASF	AMF	DF

FG45-07/08 618.5; IMC 918.6

Proponent: Tony Longino, County of Greenville SC, representing South Carolina Plumbing Gas Mechanical Inspectors Association

THESE PROPOSALS ARE ON THE AGENDA OF THE IFGC AND IMC CODE DEVELOPMENT COMMITTEES AS 2 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IFGC

Revise as follows:

618.5 Prohibited sources. Outside or return air for a forced-air heating system 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 (9.6 L/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 any appliance firebox or draft hood 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, mechanical room, boiler room or furnace room.

Exception: Where return air intakes are located not less than of 10 feet (3048 mm) from cooking appliances, taking return air from kitchen service areas shall not be prohibited.

PART II – IMC

Revise as follows:

918.6 Prohibited sources. Outdoor or return air for a forced-air heating system 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 outdoor 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 this 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 Sections 918.2 and 918.3, 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 closet, bathroom, toilet room, kitchen, garage, mechanical room, boiler room or furnace room.

Exception: Where return air intakes are located not less than of 10 feet (3048 mm) from cooking appliances, taking return air from kitchen service areas shall not be prohibited.

6. A room or space containing a fuel-burning appliance where such room or space serves as the sole source of return air.

Exceptions:

- 1. This shall not apply where the fuel-burning appliance is a direct-vent appliance.
- 2. This shall not apply where 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 (9.6 L/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 any appliance firebox or draft hood in the same room or space.
- 3. This shall not apply to 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.

Reason: Many Commercial kitchens are designed with HVAC systems that serve only the kitchen service area. Many do not have defining walls from other service areas leaving designers and inspectors with the question of where does the kitchen start and end. Section 5 prohibits return opening in a kitchen, leaving designers with the choice of using outside air only or returning air to another part of the building. This change would allow for recirculation in a kitchen service area without interfering with the operation of other appliances such as hoods. The distance of 10' was from a legacy code and from the distances provided in the same section from odors and intakes.

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

PART I - IFGC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART II – IMC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

FG46–07/08 618.5 (New), 618.5, 618.7; IMC 918.6 (New), 918.6, 918.8; IRC M1602.2 (New), M1602.2, M1602.4 (New)

Proponent: Guy McMann, Jefferson County, CO, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO)

THESE PROPOSALS ARE ON THE AGENDA OF THE IFGC, IMC AND THE IRC MECHANICAL CODE DEVELOPMENT COMMITTEES AS 3 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IFGC

1. Add new text as follows:

618.5 Combined return air and outdoor air. Where outdoor air is introduced into the return air, the outdoor air connection to the return air duct shall be located not less than 8 feet upstream of the duct connection to the furnace. This distance shall be measured along the centerline of the return air duct. The amount of outdoor air in cubic feet per minute shall not exceed 10% of the total design air flow.

2. Revise as follows:

618.5 618.5.1 Prohibited sources. (No change to current text)

618.7 Return-air limitation. Return air from one dwelling unit shall not be discharged into another dwelling unit. Forced-air furnaces shall not serve more than one dwelling unit.

PART II – IMC

1. Add new text as follows:

918.6 Combined return air and outdoor air. Where outdoor air is introduced into the return air, the outdoor air connection to the return air duct shall be located not less than 8 feet upstream of the duct connection to the furnace. This distance shall be measured along the centerline of the return air duct. The amount of outdoor air in cubic feet per minute shall not exceed 10% of the total design air flow.

2. Revise as follows:

918.6 918.6.1 Prohibited sources. (No change to current text)

918.8 Return-air limitation. Return air from one dwelling unit shall not be discharged into another dwelling unit. Forced-air furnaces shall not serve more than one dwelling unit.

PART III - IRC-M

1. Add new text as follows:

M1602.2 Combined return air and outdoor air. Where outdoor air is introduced into the return air, the outdoor air connection to the return air duct shall be located not less than 8 feet upstream of the duct connection to the furnace. This distance shall be measured along the centerline of the return air duct. The amount of outdoor air in cubic feet per minute shall not exceed 10% of the total design air flow.

2. Revise as follows:

M1602.2 M1602.2.1 Prohibited sources. (No change to current text)

3. Add new text as follows:

M1602.4 Return-air limitation. Forced-air furnaces shall not serve more than one dwelling unit.

Reason: There should be a minimum distance established in order to provide some tempering of the air before it reaches the heat exchanger. This is very important in severe cold climates as very cold air could affect the heat exchanger in a way as to lessen its life expectancy. Not doing this could decrease the over all efficiency of the system affecting the discharge temperature. Generally, the subject matter general heading should precede the specific requirements for that subject, it should not follow. Also, 618.7 has been reworded to better express the intent. Return air cannot be discharged into a room but it can be obtained from a room. 618.7 Simply isn't written very well.

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

PART I - IFGC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART II – IMC				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF
PART III – IRC-M				
Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

FG47–07/08 621.2

Proponents: Perry Bumpers, Fireplace Creations, representing himself; David Price, representing Environmental Protection Agency (EPA); Craig Conner, Building Quality, representing himself; and Stephen Klossner, representing American Lung Association Health House

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. <u>Unvented room heaters shall not be installed in a manufactured home. Unvented room heaters shall not be installed in a residence that complies with the air leakage requirements in Section 402.5 of the *International Energy Conservation Code*.</u>

Reason (Bumpers): I have been in the hearth industry for 19 years. My company has torn out 375 unvented units because of consumer complaints. Consumers complain of various problems: moisture related problems, sooting, bad smells, headaches, and sinus problems. Many consumers report that their health improves after the unvented unit is removed. My company will not sell or install gas-fired unvened fireplaces or heaters.

In my area, consumers frequently purchase the unvented units themselves. Those consumers often intend to heat their whole residence with unvented heaters. The consumers seldom read or understand the code. Unvented heaters should not be used to heat homes.

Reason (Price): EPA supports the proposed changes to the International Fuel Gas Code that would add additional restrictions to the use of unvented "vent-free" heating devices. EPA believes the proposed restriction should include, gas space heaters, vent-free gas log-sets installed in fireplaces where the damper is to remain closed, vent-free gas fireplace inserts installed in existing masonry or factor-built fireplaces and vent-free gas fireplaces and stoves. Pollutant emissions from these devices will include carbon monoxide, nitrogen dioxide, formaldehyde, respirable suspended particles, and water vapor. The proposed changes target the conditions presented by tighter energy-efficient building envelopes and reduced air change rates, found in manufactured homes, and in much new construction.

Proponents of the use of un-vented equipment frequently cite the modeling study by Whitmyre and Pandian, (2003), which attempted to predict the contribution of water vapor from these combustion devices to levels of indoor relative humidity. The study utilizes an air exchange rate of 0.35 – 1.0 ACH. However, much of the nation's new housing stock is tighter than this range. Data show the average normalized leakage for energy efficient homes is 0.31, however many energy-efficient homes are well below this level. And, energy-efficiency programs and the numerous emerging green programs (and fast-rising fuel prices) are expected to produce many more homes that achieve this level of tightness. However, with these reduced air exchange rates, devices like un-vented appliances, depositing a range of pollutants to the indoor air, become evermore problematic to occupant health.

While the study reports expected RH levels in areas (with this equipment) that are connected to other living spaces to be below 70% RH in all cases, and below 60% RH in 95 - 100% of simulations for all DOE Heating Regions, RH levels in rooms not connected to other spaces begin to approach or exceed 60% RH fairly frequently. EPA recommends that RH be kept below 60% RH, and ideally between 30 – 50%. Unfortunately, mold growth in actual homes frequently does not follow the modeling parameters. When humidity levels become elevated, all that is often needed is a surface in the home cooler than ambient levels, (from contributors such as a lack of air movement, poor ventilation, or insufficient insulation), for condensation to develop, leading to mold growth. Conditions in homes are not consistent throughout. EPA believes that un-vented devices would be expected to present conditions for mold growth in many tight, energy-efficient homes.

Manufacturers of these products recommend that their use be limited to four hours, however, in practice, human behavior does not match guidance. Reports indicate that many individuals use these devices as a primary heating source for living spaces for extended hours, greatly increasing the opportunity for increases in pollutant loads beyond those modeled in the study.

Finally, as a safety measure, the manufacturers indicate that they equip un-vented heating equipment with an oxygen detection sensors, to automatically shut off the supply of gas to the unit if oxygen levels drop below normal levels (20.9% at sea level) to 18%, to prevent a device from consuming oxygen levels in a room to below safe levels. Atmospherically-vented combustion equipment, normally (sans spillage conditions) provides venting of pollutants to the outdoors, regardless of the burn efficiency. Any gas appliance is subject to impairments to normal operation, resulting from installation errors that may affect operation, clogged burners, or accumulations of dirt from lack of owner maintenance (which is common in household where regular replacement of furnace filters often does not occur) that impairs the combustion efficiency. It is an unreasonable risk to a home's inhabitants to provide only an oxygen detection sensor as the margin of safety.

Reason (Conner): This proposal adds one sentence explicitly prohibiting unvented gas heaters from being installed in existing manufactured homes. This proposal helps protect manufactured homes from excessive moisture. Moisture produced by unvented gas heaters goes directly into the home. Excessive moisture causes mold and can damage the structure. The solution is simple: vent gas heaters.

The producers of unvented gas heaters assert there are no documented fatalities associated with unvented gas heaters. A comparison to showers may be useful. Unvented showers would probably not produce fatalities either. However, unvented showers are a bad idea because routinely venting shower moisture into the home will lead to moisture problems; therefore the code requires showers to be vented. Accordingly, we should vent gas heater moisture for the same reason we vent shower moisture.

The producers of unvented heaters point to the benefits of their oxygen depletion sensor (ODS). The sensor may protect against oxygen depletion, but it does not protect against excessive moisture.

HUD regulates the construction of all manufactured homes, no matter where the homes are placed. Both HUD's Manufactured Home Construction and Safety Standards (Section 3280.707) and NFPA 501, the "Standard for Mobile Homes", prohibit unvented gas heaters in manufactured homes. NFPA 501, Section 10.6 states:

"Fuel-burning, heat-producing appliances and refrigeration appliances shall be of the vented type and shall vent to the outside. Exception: Ranges and ovens."

In spite of HUD's and NFPA 501's regulation prohibiting unvented gas heaters, unvented gas heaters are routinely sold for use in existing manufactured homes.

Opponents offered in testimony that the term "manufactured home" was the wrong term. The IRC defines "Manufactured Homes" in its definition section. Moreover, Appendix E of the IRC addresses manufactured homes as a code topic.

The IRC may be applied to existing manufactured homes under IRC Appendix E, applied as a sort of "condition of listing" for the homes, or applied to the homes simply because they are residences. IRC Appendix E states that it applies to:

"Manufactured homes used as a single dwelling unit installed on privately owned (non-rental) lots" including application to "Alterations, additions, or repairs to existing manufactured homes."

IRC Appendix E also states:

"BUILDING SERVICE EQUIPMENT, AE505.1 General. The installation, alteration, repair, replacement, addition to or maintenance of the building service equipment within the manufactured home shall conform to regulations set forth in the Manufactured Home Standards." The term "building service equipment" is defined to include heaters. Clearly parts of the IRC apply to manufacturer homes and the equipment in those homes.

Opponents offered manufactured homes might not belong in the I-codes, due to HUD's preemptive regulation of new manufactured homes. As outlined above, portions of the I-codes are sometimes applied to manufactured homes after they are sited.

Unvented gas heater producers assert that there is no evidence of moisture damage to manufactured homes. The manufactured home industry thinks differently. Manufactured home industry research has identified unvented heaters as a major moisture problem in manufactured homes.

"Domestic sources of moisture include bathing, showering, cooking, mopping, and clothes washing and drying. **The more problematic indoor** sources are unvented gas appliances, indoor gardens, saunas, hot tubs, and indoor storage of firewood."¹

Unvented gas heaters should not be allowed in the relatively air tight homes that meet the energy code air sealing requirements to avoid moisture and air quality problems. Unvented gas heaters should never be installed in manufactured homes.

Reason (Klossner): My primary concerns with unvented appliances would fall into four main categories;

- 1. The production of water vapor from the combustion process. The moisture production from even a 10,000 Btu unvented appliance would exceed the water vapor production from a shower, if both operated for the same period of time. Most codes would require operable windows or mechanical ventilation in bathrooms to help in controlling this moisture production by a shower. There is also the likelihood that an unvented appliance would operate for longer periods of time on average, and that occupants would be unlikely to open windows when attempting to use these as a heat source because it is cold outside.
- The introduction of low levels of carbon monoxide into the home environment. There is limited data on the health impacts of low level carbon monoxide exposure. What is known is that the elderly, very young and pregnant females would have increased health effects from this contaminant. At levels of 25 PPM, which is below the alarm threshold for UL rated carbon monoxide detectors, the study I listed below shows damage to hearing for children.
- The introduction of nitrogen dioxide into the home environment. Nitrogen dioxide is a known exasperator for asthmatics. The study cited below they found that when unvented combustion heating appliances were replaced with vented appliances or electric heat, the incidence of all asthma-related symptoms and missed school days declined sharply.
- 4. The introduction of combustion contaminants in current housing stock, based on house tightness.

Housing stock is getting tighter based on current codes and standards. Energy efficient programs are grabbing a larger share of the housing market. None of the energy programs that I am aware of allow unvented appliances to be installed. This is partly because of the increased contaminant load from carbon monoxide, nitrogen dioxide and water vapor. The American Lung Association's Health House program has excluded them from our building guidelines mainly because of the water vapor productions and nitrogen dioxide, a known asthma exasperator.

Studies and Executive Summaries -

- 1. The production of water vapor from combustion
 - http://www.homeenergy.org/archive/hem.dis.anl.gov/eehem/96/960905.html#tab1

From this article - Even benign gases can be a problem if not adequately vented. A shower emits about 300 grams per hour of water into the air and is typically used for less than one hour daily. Building codes require operable windows or installed ventilation fans to remove this vapor. In contrast, about 400 grams of water vapor is produced per 10,000 Btu of fuel consumed. This water, if not removed by ventilation, will condense on cold surfaces such as windows and wall cavities. In moderate and moist climates, the accumulation of moisture leads to mildew and fungal growth. Fungal colonies in building materials cause rot and decay, and produce spores that can cause allergic reactions.

2. The introduction of low levels of carbon monoxide into the home environment

University of California - Los Angeles (http://www.newsroom.ucla.edu/) Contact: Elaine Schmidt

How chronic exposure to tiny levels of carbon monoxide damages hearing in young ears - UCLA scientists first to identify mechanism. Findings: UCLA scientists have discovered how chronic exposure to low levels of carbon monoxide [C O] damages the inner ear, resulting in permanent hearing loss. At the Ca/OSHA's exposure limit of 0.0025 percent -- or 25 parts per million CO in the air -- the gas creates oxidative stress, a condition that damages the cochlear cells, leading to impairment of the auditory nerves.

Context: Tobacco smoke, gas heaters, stoves and ovens all emit CO, which can rise to high concentrations in poorly ventilated homes. Infants and children are particularly vulnerable to CO exposure because they spend a great deal of time in the home. No policies exist to regulate CO in the home.

This is the first time that inhaled CO has been linked to oxidative stress, a known risk factor in many disorders, including Alzheimer's, Parkinson's, Multi Sclerosis, Lou Gherig's Disease and Cardiovascular Disease. Tobacco smoke, which contains CO, aggravates many of these diseases. The UCLA findings highlight the need for policy makers to reexamine the regulation of car exhaust, tobacco smoke, smog, and heating and cooking appliances.

3. The introduction of nitrogen dioxide into the home environment.

http://www.epa.gov/iaq/no2.html#Health%20Effects%20Associated%20with%20Nitrogen%20Dioxide

From this document:

Sources of Nitrogen Dioxide. Kerosene heaters, un-vented gas stoves and heaters. Environmental tobacco smoke. Health Effects Associated with Nitrogen Dioxide

Eye, nose, and throat irritation. May cause impaired lung function and increased respiratory infections in young children. EPA's Integrated Risk Information System profile for Nitrogen Dioxide - <u>epa.gov/iris/subst/0080.htm</u>¹⁴

NO₂ acts mainly as an irritant affecting the mucosa of the eyes, nose, throat, and respiratory tract. Extremely high-dose exposure (as in a building fire) to NO₂ may result in pulmonary edema and diffuse lung injury. Continued exposure to high NO₂ levels can contribute to the development of acute or chronic bronchitis. Low level NO₂ exposure may cause increased bronchial reactivity in some asthmatics,

¹ From *"Moisture Problems in Manufactured Homes"* by the Manufactured Housing Research Alliance (emphasis added), page 4.2. The report is available at http://www.pathnet.org/si.asp?id=441

decreased lung function in patients with chronic obstructive pulmonary disease and increased risk of respiratory infections, especially in young children.

Average level in homes without combustion appliances is about half that of outdoors. In homes with gas stoves, kerosene heaters, or un-vented gas space heaters, indoor levels often exceed outdoor levels.

The full text of the study below is posted at http://ije.oupjournals.org/cgi/reprint/33/1/208 "Scientists Say Unvented Gas Heaters Worsen Asthma Symptoms"

In February 2004, Australian scientists expressed concern that unvented gas heaters and related combustion appliances pose a risk to asthmatic children. The study they conducted focused on unvented heaters in schools, but the researchers asserted that it is reasonable to conclude that unvented combustion appliances pose a risk to children and all asthmatics in the home environment as well

In the home, unvented fireplaces, gas logs, and gas heaters release carbon dioxide, nitrous oxides, and nitrous acids in their combustion processes. Outdoors, nitrous oxides form smog, a potent asthma trigger in sensitive populations. Indoors, the Australian study linked nitrous oxides, in combination with breathing in higher concentrations of carbon dioxide and nitrous acids, with increased incidence of tight chest, difficulty breathing, and full-blown asthma attacks requiring the use of fast-acting "rescue" inhalers. The study found that when unvented combustion heating appliances were replaced with vented appliances or electric heat, the

incidence of all asthma-related symptoms and missed school days declined sharply. http://www.homeenergy.org/archive/hem.dis.anl.gov/eehem/98/980108.html

From this article

The New York State Research and Development Authority (NYSERDA) produced a peer-reviewed critique of the GRI standard. Among other things, it criticizes the GRI's indoor air quality guideline of 0.5 ppm (parts per million) for nitrogen dioxide. "No international, federal, or state guidelines that have been adopted are as high as 0.5 ppm. If an air quality guideline of 0.25 ppm is used for nitrogen dioxide, air quality will quickly reach unacceptable levels for homes" in climates with more than 2,000 heating degree-days. Some such climates include mild Santa Barbara, California; St. Louis, Missouri; and Washington, D.C. The NYSERDA report also criticized the GRI's science. "The heater sizes recommended," it says, "are larger than the heater sizes which were used to calculate indoor air contaminant levels."

4. The introduction of combustion contaminants in current housing stock, based on house tightness.

The following study shows data on approximately 100,000 homes measured for air tightness. At the medial tightness levels, energy programs should have mechanical ventilation and ordinary homes should possibly have some form of ventilation. Adding this contaminant load without requiring ventilation could lead to increased problems with moisture and increased exasperation for asthmatics and other people with reactive air way disease occupying these homes. This would include the very young and elderly in this category. http://epb.lbl.gov/publications/lbnl-59041.pdf

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

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

FG48-07/08

621.7 (New)

Proponent: Tom Lariviere, Fire Department, Madison, MS, representing Joint Fire Service Review Committee

Add new text as follows:

621.7 Carbon monoxide alarm. A listed carbon monoxide alarm shall be installed in each room that contains an unvented room heater. Carbon monoxide alarms shall be installed in accordance with the manufacturer's installation instructions.

Reason: This proposal is designed to provide a life saving device in areas where fuel-fired heaters are utilized. There have been incidents where the occupants have been overcome by carbon monoxide as a result of poorly or improperly operating heaters.

This proposal does not require CO detectors in all buildings, but only in those buildings which have an unvented heater installed as a permanent appliance. The unvented appliances have a high susceptibility to producing carbon monoxide when the combustion is not quite balanced. This proposal will require a CO detector when these heaters are installed and the potential need for the detector has been demonstrated.

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

FG49–07/08 [F] 633.1; IMC [F] 924.1

Proponent: Robert J Davidson, Davidson Code Concepts, LLC, representing himself

THIS PROPOSAL IS ON THE AGENDA OF THE IFC CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

Revise as follows:

[F] 633.1 (IMC [F] 924.1) General. Stationary fuel-cell power systems having a power output not exceeding 10 MW shall be tested in accordance with ANSI CSA America FC 1 and shall be installed in accordance with the manufacturer's installation instructions, and NFPA 853, the *International Building Code* and the *International Fire Code*.

Reason: As currently written Section 633.1 of the International Fuel Gas Code and Section 924.1 of the *International Mechanical Code* imply that only the manufacturer's instructions and NFPA 853 would be applicable to the installation of stationary fuel-cell power systems. This proposal clarifies that such installations must also comply with the *International Building Code* and the *International Fire Code*.

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

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

FG50-07/08 636 (New)

Proponent: James Ranfone, representing American Gas Association

Add new section as follows:

SECTION 636 (IFGS) OUTDOOR OPEN FLAME DECORATIVE APPLIANCES

636.1 (IFGS) Installation. Permanently fixed in place outdoor open flame decorative appliances shall be installed in accordance with the manufacturer's installation instructions. The connection to the gas piping system shall be in accordance with Section 411.1, item 1, 2, 3 or 8.

Reason: To add minimum code coverage for permanently fixed outdoor open flame decorative appliances. These appliance installations are becoming popular. This extract will help improve the code by adding important installation and safety requirements from the *National Fuel Gas Code*. The American Gas Association is asking the ICC membership whether this provision is necessary in the IFGC and to consider extracting Section 10.32 from the 2009 *National Fuel Gas Code*.

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

Analysis: The text in this proposal is extracted from the *National Fuel Gas Code* (NFGC) (ANSI Z223.1) and has been editorially revised as necessary to make it conform to ICC style and format conventions. It is the intent of this proposal that the text be either accepted as is, without modification, or rejected. The proposed text is either a new section to both the NFGC and the IFGC or is a revision to a current NFGC section for which there is no corresponding section in the IFGC. If this text is accepted by the ICC membership, it will be placed into the IFGC and designated as "IFGS" text, meaning that such text is maintained by the ANSI Z223 (NFGC) Committee process, not the ICC code development process.

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

FG51_07/08 Chapter 8

Proponent: Standards writing organizations as listed below.

Revise standards as follows:

ASME	American Society of Mechanical Engineers International Three Park Avenue New York, NY 10016-5990
Standard reference number	Title
B1.20.1-1983 (Reaffirmed <u>2006</u> 2001)	Pipe Threads, General Purpose (Inch)
B16.1- <u>2005</u> 1998	Cast Iron Pipe Flanges and Flanged Fittings, Classes 25, 125 and 250
B16.20- 1998 <u>(Reaffirmed</u> <u>2004)</u>	Metallic Gaskets for Pipe Flanges Ring-joint, Spiral-wound, and Jacketed — with Addendum B16.20a-2000
B16.44- <u>2002</u> 01	Manually Operated Gas Valves for Use in House Aboveground Piping Systems up to 5 psi
B36.10M- <u>2004</u>	Welded and Seamless Wrought Steel Pipe
CSD-1- <u>2004</u>	Controls and Safety Devices for Automatically Fired Boilers
ASTM	ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428-2959
Standard reference number	Title
A 53/A 53M- <u>06a</u> 05	Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
A 106/A 106M- <u>06a</u> 04b	Specification for Seamless Carbon Steel Pipe for High-Temperature Service
C 315- <u>07</u> 02	Specification for Clay Flue Liningers and Chimney Pots
D 2513- <u>07a</u> 05	Specification for Thermoplastic Gas Pressure Pipe, Tubing, and Fittings
NFPA	National Fire Protection Association 1 Batterymarch Park Quincy, MA 02269-9101
Standard reference number	Title
37- <u>06</u> 02	Installation and Use of Stationary Combustion Engines and Gas Turbines
85- <u>07</u> 04	Boiler and Combustion Systems Hazards Code
853- <u>07</u> 03	Installation of Stationary Fuel Cell Power Systems
UL	Underwriters Laboratories, Inc. 333 Pfingsten Road Northbrook, IL 60062
Standard reference number	Title
103-2001	Factory-Built Chimneys, for Residential type and Building Heating Appliances with Revisions through December 2005 June 2006

127- 1999	Factory-Built Fireplaces – with Revisions through November 1999 2006
441-1996	Gas Vents – with Revisions through December 1999 August 2006
795- <u>2006</u> 1999	Commercial-Industrial Gas Heating Equipment
959-01	Medium Heat Appliance Factory-Built Chimney - with Revisions through September 2006
1738- <u>06</u>	Venting Systems for Gas-Burning Appliances, Categories II, III and IV – with Revisions through October 2006

Reason: The *CP 28 Code Development Policy*, Section 4.5* requires the updating of referenced standards to be accomplished administratively, and be processed as a Code Change Proposal. In May 2007, a letter was sent to each developer of standards that are referenced in the International Codes, asking them to provide the ICC with a list of their standards in order to update to the current edition. Above is the received list of the referenced standards that are under the maintenance responsibility of the IFGC Committee.

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

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