

IBC Code Change Committee Hearings - Dallas 5/12

Jim Buckley, representing MACS and CFLI

See also MACS 2012 for details, groundwork, etc.

S229-12

2111.1, 2111.3, 2111.4, 2113.1, 2113.3, 2113.4

Support - Approved

S230-12

2111.1

Proponent: Jim Buckley, Buckley Rumford Co., representing Masonry Alliance for Codes and Standards and Clay Flue Lining Institute (buckley@rumford.com)

Revise as follows:

2111.1 Definition. A masonry fireplace is a fireplace constructed of ~~concrete or masonry~~ solid masonry units, hollow masonry units grouted solid, stone or concrete, hereinafter referred to as “masonry”. Masonry fireplaces shall be constructed in accordance with this section.

Reason: To match the language in Section 2113.1 and in the IRC

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

S230-12

Public Hearing: Committee: AS AM D

Assembly: ASF AMF DF

If S229-12 is approved we still need in 2111.1 General to strike ~~concrete or masonry~~ and add solid masonry units, hollow masonry units grouted solid, stone or concrete, hereinafter referred to as “masonry”

Disapproved - seemed to be confused about whether or not it reaffirmed the definition. I guess I need to see what the new definition says.

S231-12

2111.2, 2111.3, 2111.4, 2111.12, 2113.3, 2113.3.1, 2113.3.2

If S229–12 is approved we still need to replace ~~reinforcing~~ reinforcement - better English - a noun as opposed to a verb.

Disapproved. If only editorial let staff deal with it.

S232–12

2111.11

Proponent: Jim Buckley, Buckley Rumford Co., representing Masonry Alliance for Codes and Standards and Clay Flue Lining Institute (buckley@rumford.com)

Revise as follows:

2111.11 Fireplace clearance. Any portion of a masonry fireplace located in the interior of a building or within the *exterior wall* of a building shall have a clearance to combustibles of not less than 2 inches (51 mm) from the front faces and sides of masonry fireplaces and not less than 4 inches (102 mm) from the back faces of masonry fireplaces. The airspace shall not be filled, except with noncombustible insulation or to provide fireblocking in accordance with Section 2111.12.

Reason: To allow noncombustible insulation in clearance to combustible spaces. It clears up confusion with the reference to fireblocking (which can be noncombustible insulation) and is what builders do anyway.

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

S232-12

Public Hearing: Committee: AS AM D

Assembly: ASF AMF DF

Support. Stand on the reason.

Disapproved. Didn't like "noncombustible insulation". There is no such thing as "noncombustible insulation", testified guy with beard. Did he mean as defined in

the code? Arch testified that there was some DowCorning "noncombustible insulation". John Siu on Committee (Seattle Official) suggested I look at Section 718. See S237.

S233–12

2111.12

Proponent: Jim Buckley, Buckley Rumford Co., representing Masonry Alliance for Codes and Standards and Clay Flue Lining Institute (buckley@rumford.com)

Revise as follows:

2111.12 Fireplace fireblocking. All spaces between fireplaces and floors and ceilings through which fireplaces pass shall be fireblocked with noncombustible material securely fastened in place. The fireblocking of spaces between wood joists, beams or headers shall be ~~to a depth of 1 inch (25 mm) and shall only self-supporting~~ or be placed on strips of metal or metal lath laid across the spaces between combustible material and the ~~chimney~~ fireplace.

Reason: To make the language the same as in Section 2113.20. "Chimney" is replaced by "fireplace" as is appropriate in the fireplace section.

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

S233-12

Public Hearing: Committee: AS AM D

Assembly: ASF AMF DF

Support. Editorial

Disapproved 11 to 3 - One didn't like "self supporting" another was not impressed that it was mirroring language in the fireplace section.

S234–12

2112.2, 2112.5, Chapter 35 (NEW)

Proponent: Timothy N. Seaton, B.S.C.E, Empire Masonry Heaters LLC (tseaton@masonryheater.com)

Revise as follows:

2112.2 Installation. Masonry heaters shall be installed in accordance with this section and comply with one of the following:

1. Masonry heaters shall comply with the requirements of ASTM E 1602; or
2. Masonry heaters shall be *listed* and labeled in accordance with UL 1482 or EN 15250

Changed my opinion after Tim convinced me it would be a listing - not just some picked out features. Heaters would be tested by an ISO certified lab and listed and labeled just like a UL listed heater. Pushes UL to modify UL 1482 to be more appropriate for heaters. Hopefully some features of EN 15250 can be worked into UL 1482 and/or ASTM E1602 which is already referenced by the section.

Approved 10/4 - two committee members asked if heaters listed to EN 15250 would be unsafe. No. One committee member concerned about dissension within heater community.

S235-12

2112.5, Table 2112.1 (NEW), Chapter 35 (NEW)

Proponent: Timothy N. Seaton, B.S.C.E., Empire Masonry Heaters LLC

Revise as follows:

2112.5 Masonry heater clearance. Combustible materials shall not be placed within 36 inches (765 mm) of the outside surface of a masonry heater in accordance with NFPA 211, Section 8-7 (clearances for solid fuel-burning appliances), and the required space between the heater and combustible material shall be fully vented to permit the free flow of air around all heater surfaces.

Exceptions:

1. Where the masonry heater wall thickness is at least 8 inches (203 mm) thick of solid masonry and the wall thickness of the heat exchange channels is at least 5 inches (127 mm) thick of solid masonry, ~~combustible materials shall not be placed~~

~~within 4 inches (102 mm) of the outside surface of a masonry heater. A clearance of at least 8 inches (203 mm) shall be provided between the gas-tight capping slab of the heater and a combustible ceiling. or when the wall thicknesses are similarly 4 inches (102 mm) at the firebox and 2 • inches (64 mm) at the heat exchange channel but are lined with at least the inner 2 inches (51 mm) and 1 inch (25 mm) respectively of firebrick(ASTM C27 or ASTM C1261) or refractory equivalent, clearances shall be according to Table 2112.5~~

Oppose because wall thicknesses and clearances are drawn or inferred from UL listings or un-referenced European guidelines. Direction is good but proposal should be backed up by testing or in referenced ASTM E 1602.

Disapproved - Tim asked for disapproval. Smart move. Preserves issue for consideration at plenary session but encourages masonry heater community to work together.

S236-12

2112.5

Proponent: Timothy N. Seaton, B.S.C.E., Empire Masonry Heaters LLC
(tseaton@masonryheater.com)

Revise as follows:

2112.5 Masonry heater clearance. Combustible materials shall not be placed within 36 inches (765 914 mm) or the distance of the allowed reduction method of from the outside surface of a masonry heater in accordance with NFPA 211, Section 8-7 (clearances for solid fuel-burning appliances), 12.6 Clearances from Solid Fuel-Burning Appliances, and the required space between the heater

Testify for approval. Editorial.

Approved.

S237-12

2113.19

Proponent: Jim Buckley, Buckley Rumford Co., representing Masonry Alliance for Codes and Standards and Clay Flue Lining Institute

Revise as follows:

2113.19 Chimney clearances. Any portion of a masonry chimney located in the interior of the building or within the exterior wall of the building shall have a minimum airspace clearance to combustibles of 2 inches (51 mm). Chimneys located entirely outside the exterior walls of the building, including chimneys that pass through the soffit or cornice, shall have a minimum airspace clearance of 1 inch (25 mm). The airspace shall not be filled, except to provide non-combustible insulation and fireblocking in accordance with Section 2113.20.

Modification to proposed modification S237-12. Change the last sentence in Section 2113.19 to:

The airspace shall not be filled, except with noncombustible insulation or to provide fireblocking in accordance with Section 2113.20.

Revised to be consistent with 2111.11 - NAHB

Exceptions:

1. Masonry chimneys equipped with a chimney lining system *listed* and labeled for use in chimneys in contact with combustibles in accordance with UL 1777, and installed in accordance with the manufacturer's instructions, are permitted to have combustible material in contact with their exterior surfaces.

2. Where masonry chimneys are constructed as part of masonry or concrete walls, combustible materials shall not be in contact with the masonry or concrete wall less than ~~12 inches (305 mm)~~ 8 inches (204 mm) from the inside surface of the nearest flue lining.

3. Exposed combustible trim and the edges of sheathing materials, such as wood siding, are permitted to abut the masonry chimney sidewalls, in accordance with Figure 2113.19, provided such combustible trim or sheathing is a minimum of ~~12 inches (305 mm)~~ 8 inches (204 mm) from the inside surface of the nearest flue lining. Combustible material and trim shall not overlap the corners of the chimney by more than 1 inch (25 mm).

Reason:

To allow non combustible insulation in clearance to combustible spaces. It clears up confusion with the reference to fireblocking (which can be non combustible insulation) and is what builders do anyway.

Changing the 12" of solid masonry to 8" where chimneys can be in contact with combustible trim or framing in a masonry wall is consistent with the relative wall thicknesses, historic experience and recent engineering studies.

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

S237-12

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

Testify in Support.

Many chimneys are in contact with combustibles anyway based on extra-code common sense decisions made by builders with the acquiescence of code officials. Until recently the code has been silent on how builders can deal with closing the required 2" clearance to combustibles space. The code was considered to be literally "un-buildable".

A couple of years ago the IBC was changed to allow combustible materials to be in contact with a fireplaces if the fireplace walls are at least 12" thick. At that same the same 12" rule was arbitrarily and conservatively applied to chimneys - in spite

of the fact that chimney walls need only be 4" thick - half the thickness of firebox walls.

We would like to revisit that excessively conservative decision in light of historical precedent and actual building practice and propose that chimneys with walls at least 8" thick be permitted to abut combustible materials.

Disapproved. - *Like with S232-12, didn't like "noncombustible insulation". There is no such thing as "noncombustible insulation", testified guy with beard. Did he mean as defined in the code? Arch testified that there was some DowCorning "noncombustible insulation". John Siu on Committee (Seattle Official) suggested I look at Section 718. See S237. One committee member suggested just saying "non combustible material". I rejected as that could be brick. Maybe stupid. But reinforces that committee was concerned about "noncombustible insulation" not being defined in the code - not about concept of noncombustible insulation. Maybe I should just substitute "Batts or blankets of mineral wool, mineral fiber or other approved materials installed in such a manner as to be securely retained in place." straight out of Section 718*

Nobody said a thing about reducing the 12" to 8" but better be ready with engineering or testing.

Notes and Strategy:

Check fireblocking in Sections 718.2.5, 718.1.7, 714.4.1.2 and 714.4.2

718.2.1 Fireblocking materials. *Fireblocking shall consist of the following materials:*

1. Two-inch (51 mm) nominal lumber.
2. Two thicknesses of 1-inch (25 mm) nominal lumber with broken lap joints.
3. One thickness of 0.719-inch (18.3 mm) wood structural panels with joints backed by 0.719-inch (18.3 mm) wood structural panels.
4. One thickness of 0.75-inch (19.1 mm) particleboard

with joints backed by 0.75-inch (19 mm) particleboard.

5. One-half-inch (12.7 mm) gypsum board.

6. One-fourth-inch (6.4 mm) cement-based millboard.

7. Batts or blankets of *mineral wool*, *mineral fiber* or other *approved* materials installed in such a manner as to be securely retained in place.

8. Cellulose insulation installed as tested for the specific application.

718.2.5 Ceiling and floor openings. Where required by Section 712.1.7, Exception 1 of Section 714.4.1.2 or Section 714.4.2, *fireblocking* of the *annular space* around vents, pipes, ducts, chimneys and fireplaces at ceilings and floor levels shall be installed with a material specifically tested in the form and manner intended for use to demonstrate its ability to remain in place and resist the free passage of flame and the products of combustion.

Chip Clark: Wait until official results published with reasons.

Go see John Siu. See what he really meant by referring to 718.

Call ICC Secretary, Alan Carr (425 451 9541) <acarr@iccsafe.org>, and UL guy, John Taecker, in in San Jose, CA and NAHB guy, Gary Ehrlich.