

BOARD OF APPEALS

February 4, 2016

Members Present: David Obermiller and Joel Davy.

Others Present: Ron Strand, Melissa Gaulrapp, Ryan Erickson, Leonard Beaken, Kevin Koskela, and Gretchen Morlan.

Mr. Strand stated that and as a quorum was not present, a public hearing could be held but no business could be conducted. He introduced Leonard Beaken and Kevin Koskela from the Inspections Department to the Board.

Mr. Beaken introduced Chapter's 12-43 of the IRC.

Chapter 12

No Changes.

Chapter 13

Section M1301.1.1 Flood-resistant installation. Staff recommends keeping the existing local **AMENDMENT** deleting this section, as it pertains to floodproofing.

Section M1305.1 Appliance access for inspection service, repair and replacement. Removed text: "Installation of room heaters shall be permitted with at least 18" working space. A platform shall not be required for room heaters."

Section M1305.1.3.1 Electrical Requirements. Added: "Exposed lamps shall be protected from damage by location or lamp guards."

Section M1305.1.4.3 Electrical requirements are the same as Section M1305.1.3.1. This section was added.

Section M1306 Clearances from Combustible Construction.

Section M1306.2.1 Added Section: Labeled Assemblies. The allowable clearance shall be based on an approved reduced clearance protective assembly that is listed and labeled in accordance with UL 1618.

Section M1307.2 is a new section. Mr. Strand inquired about Section M1307.2 specifically regarding whether it applied to higher seismic zones. Mr. Beaken agreed that it would.

Section M1308.2 Protection against physical damage. Exception: Cast iron piping and galvanized steel piping shall not be required to be protected. This is stated in Section M1308.2 of the 2012 IRC but not as an exception. Mr. Beaken noted that Section M1308.2.2 and Section M1308.2.3 had been part of Section M1308.1 in 2012.

Section M1308.2.3 This section was added, but was also stated in the 2012 IRC Section M1308.2.

Chapter 14

Section M1401.3 Equipment and appliance sizing. An exception was added allowing for manufacturer's capacity determination to be used.

Section M1401.5 Flood hazard. Staff recommends keeping existing local **AMENDMENT** deleting this section as it pertains to flood proofing.

Section M1403.1 Heat pumps. The 2012 IRC version was removed, and the 2015 IRC version reads as follows: "Electric heat pumps shall be listed and labeled in accordance with UL 1995 or UL/CSA/ANCE 60335-2-40."

Section M1403.2 The section on foundations and supports was removed entirely.

Section M1410.1 General. Pellet-fuel burning appliances were added.

Section M1410.2 Floor Mounting. Added text to Exception 1: "Non-combustible materials or floor protectors must be listed and labeled in accordance with UL 1618."

Mr. Obermiller inquired if Section M1410 would apply to fuel-burning equipment on a wood floor. Mr. Beaken agreed.

Section M1411.3.2 Drain pipe materials and sizes. Section was reworded.

Section M1411.3.3 Added section: Drain line maintenance. "Condensate drain lines shall be configured to permit the clearing of blockage and performance of maintenance without requiring the drain line to be cut." Mr. Beaken explained that this is a significant change.

Section M1411.4 Condensate pumps. Addition to the code (read from book). Section M1411.4 from the 2012 IRC moved to Section M1411.5 in the 2015 IRC edition.

Mr. Obermiller inquired if this applies to a pump failing and whether or not a backup is required. Mr. Beaken stated that a backup is required.

Section M1411.7 Location and protection of refrigerant piping. Addition to the code.

Section M1412 Absorption Cooling Equipment and **Section M1413** Evaporative Cooling Equipment UL/CSA/ANCE 60335-2-40 was added as another listing to **Section M1412.1** and **Section M1413.1**.

Chapter 15

Section M1502.4.2 Duct Installation. Staff recommends keeping existing local **AMENDMENT** which states that exhaust ducts shall be supported at intervals not to exceed 5 feet and may be mechanically fastened.

Section M1502.4.4 Dryer exhaust duct power ventilators. Significant change to section.

Section M1502.4.5 Changed to agree with Section M1502.4.5.3.

Section M1502.4.5.3 Dryer Exhaust Duct Power Ventilator is a new section.

Section M1502.4.6 Length Identification. Removed text: "...is concealed within the building construction..." meaning any duct exceeding 35 feet must be identified. Mr. Obermiller clarified that the length must be identified on any dryer duct longer than 35 feet.

Section M1503.4 Makeup air required. Removed text from 2012 IRC: "Means of closure and shall be automatically controlled to start and operate simultaneously with the exhaust system." Added text to 2015 IRC: "Such makeup air systems shall be equipped with not less than one damper." Mr. Beaken stated that a damper can be automatic or gravity. Staff recommends adding a new local **AMENDMENT** to add: "Shall be mechanically provided with makeup air at a rate of approximately equal to the exhaust air rate in excess of 400 CFM."

Mr. Obermiller asked for clarification and Mr. Beaken provided an example. He stated that if you have an exhaust fan in excess of 400 CFM makeup air is required. Mr. Beaken and Mr. Koskela agreed that some kitchen exhaust was up to 900 CFM.

Section M1503.4.1 is a new section.

Mr. Obermiller asked if staff saw this situation & Mr. Beaken stated they did. Mr. Obermiller asked if the air had to be provided by mechanical means, and Mr. Beaken responded that it did not, nor does code require makeup air be reheated. The Board discussed how this would apply in the field.

Section M1506.2 Duct Length. New Section.

Table M1506.2 Duct Length. Table was added.

Mr. Beaken stated that the above Table is restricted. Mr. Obermiller inquired about how the information would be enforced. Mr. Koskela stated that the duct work is inspected before it is covered up. Mr. Beaken stated that this information is not in the IMC and will be addressed during upcoming conference

Section M1506.3 Exhaust Openings. Staff recommends keeping existing local **AMENDMENT** which removes the word “nonoperable”.

Chapter 16

Section M1601.1 Duct Design. The appliance manufacturers installation instruction was added to item 2.

Table M1601.1.1 (1) was removed and **Table M1601.1.1(2)** was renumbered to M1601.1.1 (page 490) and expanded the chart.

Mr. Obermiller asked how this would be enforced and Mr. Koskela responded that the ducts are inspected during construction. Mr. Beaken stated that the chart was based on CFM so it would be easy to interpret in the field. He noted that this table had not been added to the 2015 IMC.

Section M1601.4.1 Joints, seams and connections. Section changed to agree with the new energy code requirements.

Section M1601.4.2 Duct Lap is a new section.

Section M1601.4.10 Staff recommends continuing the existing local **AMENDMENT** deleting this section as it pertains to flood proofing.

Section M1602.1 was re-titled from “Return Air” to “Outdoor air openings” for clarification.

Section M1602.2 was re-titled from “Prohibited Sources” to “Return air openings” for clarification.

Mr. Obermiller inquired what this section pertains to. Mr. Beaken stated outdoor air intakes.

Chapter 17

Section M1701.2 Opening location. Staff recommends continuing the existing local **AMENDMENT** deleting this section, as it pertains to floodproofing, and replacing it with the text: “Prohibited Sources. Attic Spaces shall not be used as a source of combustion air.”

Chapter 18

Section M1801.1 Venting requirement. Staff recommends continuing the existing local **AMENDMENT** deleting the allowance for unvented appliances.

Mr. Obermiller requested an example of an unvented appliance. Mr. Beaken provided an example of a standing heater and explained that the code allows up to 40,000btu’s. However, the use of standing heaters has not been allowed in Fargo for 15 years due to carbon monoxide concerns.

Section M1804.4 Door Swing. Added text: “Appliance and equipment vent terminals shall be located such that the door cannot swing within 12 inches (305mm) horizontally of the vent terminals. Door stops or closers shall not be installed to obtain this clearance”.

Mr. Beaken clarified that this would apply to outside doors.

Chapter 19

Section M1901.3 Prohibited Locations. Section was removed from 2015 IRC.

Chapter 20

Section M2001.1.1 Standards. Added text: “Controls and safety devices for boilers with fuel input ratings of 12,500,000 Btu/hr (3 663 388 watts) or less shall meet the requirements of ASME CSD-1”.

Section M2001.4 Flood-resistant installation. Staff recommends keeping existing local **AMENDMENT** deleting this section in its entirety as it pertains to flood proofing.

Section M2002.5 Boiler low-water cutoff. Staff recommends deleting the existing local **AMENDMENT** as the exception has been added to the code.

Section M2005 Water Heaters.

Section M2005.1 General. Added "Chapter 28" to the first sentence. Staff recommends adding a local **AMENDMENT** changing that reference to refer to the ND State Plumbing Code.

Mr. Obermiller inquired if water heaters are regulated in the ND state plumbing code. Mr. Beaken confirmed that water heaters are regulated by the ND State Plumbing Code.

Chapter 21

Section M2101.3 Protection of potable water. Staff recommends continuing existing local **AMENDMENT** which removes change the reference to the North Dakota State Plumbing Code.

Table M2101.9 Hanger Spacing Intervals. Footnote "a" was added.

Section M2101.10 Tests. Staff recommends continuing the existing local **AMENDMENT** specifying that only new piping shall be isolated and tested.

Table M2101.1 Hydronic Piping Materials. Materials added: "(ABS) Plastic Pipe". Some ASTM standards were added. Footnote "a. 5" was added thus limiting ABS to temperatures below 160F only.

Section M2103.3 Piping Joints. Added standards for soldering and brazing. Staff recommends adding a local **AMENDMENT** to Item 2 which changes the reference to the North Dakota State Plumbing Code. Item 7 was added: "Raised temperature polyethylene (PE-RT) tubing shall be joined using insert or compression fittings."

Section M2104.2 Piping Joints. Section 4 was added: "Raised temperature polyethylene (PE-RT) shall be installed in accordance with the manufacturer's instructions."

Section M2104.3.3 PE-RT insert fittings. Section was added: "PE-RT insert fittings shall be installed in accordance with the manufacturer's instructions".

Section M2105 Ground-Source Heat-Pump System Loop Piping. Section has been revised and expanded to include Section M1205.1 through Section M1205.29.

Table M2105.4 and Table M2105.5 are new tables that address the standards for various pipe and fittings.

Mr. Obermiller clarified that Section M2105 applied to underground piping and connections. He asked if staff saw heat pumps often. Mr. Koskela responded that they did not.

Chapter 22

Section M2201.6 Flood-resistance installation. Staff recommends continuing existing local **AMENDMENT** deleting this section as it pertains to floodproofing.

Chapter 23

Chapter 23 was originally a part of Chapter 22. Mr. Beaken stated that when presenting the IMC, if there is anything that pertains to this chapter, it will be addressed at that time.

Chapter 24

Page 513

Section G2403 General Definitions. Added Definition: Air, Makeup: "Any combination of outdoor and transfer air intended to replace exhaust air and exfiltration."

Section G2404.7 Staff recommends keeping existing local **AMENDMENT** deleting this section as it pertains to flood proofing.

Section G2404.11 Condensate pumps. Added Section.

Section G2406.2 Prohibited locations. Staff recommends keeping existing local **AMENDMENT** deleting items 3 and 4 and re-numbering item 5.

Figure G2407.6.1(1) Staff recommends keeping existing local **AMENDMENT** deleting this figure in its entirety as it displays the pulling of combustion air from the attic.

Figure G2407.6.1(2) Staff recommends keeping existing local **AMENDMENT** deleting this figure in its entirety as it displays the pulling of combustion to the attic.

Figure G2407.6.2 Staff recommends keeping existing local **AMENDMENT**.

Section G2409.2 Reduction Table. Changed text: “reduced clearance protective assembly listed and labeled in accordance with UL 1618”. Added Figure 308.2(1).

Section G2411.1.1.3 through Section G2411.1.1.5 are new sections.

Section G2413.2 Maximum gas demand. Reworded first part of section and added text: “flow rate of gas to be provided shall be adjusted for altitude where the installation is above 2,000 feet (610M) in elevation.”

Section G2413.5 Allowable pressure drop. Staff recommends keeping existing local **AMENDMENT** adding the text “but such pressure loss shall not be greater than 0.5 inch water column for gas pipe systems operating at less than 2 psi”.

Section G2414.6 Plastic pipe, tubing and fittings. Added text: “polyvinyl chloride (PVC) and chlorinated polyvinyl chloride (CPVC) plastic pipe, tubing and fittings shall not be used to supply fuel gas”.

Section G2414.10.4 Metallic fittings. Item 5 was added.

Section G2415.5 Fittings in concealed locations. Fittings installed in concealed locations shall be limited to the following types: Added threaded elbows, tees and couplings; welded fittings and fittings listed to ANSI LC-1/CSA 6.26 or ANSI LC-4.

Mr. Obermiller clarified that threaded fittings had not been allowed in concealed spaces. Mr. Beaken stated that staff was comfortable with this change.

Section G2415.7 Protection against physical damage. Text is more descriptive. Sections G2415.7.1, G2415.7.2, and G2415.7.3 were added.

Section G2415.18 Pipe cleaning. Added section.

Section G2417.4.1 Test pressure. Staff recommends continuing the existing local **AMENDMENT** increasing the minimum test pressure to 25 psig.

Section G2421.2 MP Regulators. Added Item 7: “Where connected to rigid piping, a union shall be installed within 1 foot (304 mm) of either side of the MP regulator”.

Mr. Obermiller asked if a shut off valve would be required upstream. Mr. Beaken responded that it would.

Section G2422.1.5 Movable appliances. Added text: “listed as complying with ANSI Z21.69”.

Section G2425.8 Appliances not required to be vented. Staff recommends continuing the existing local **AMENDMENT** deleting Item 7.

Section G2425.12 Residential and low-heat appliances flue lining systems. Staff recommends continuing the existing local **AMENDMENT**.

Section G2426.7.1 Door swing. Added section. This is covered in Section M1804.4.

Section G2427.4.1 Plastic piping. Added section.

Section G2427.5.2 (503.5.3) Masonry chimneys. Staff recommends continuing the existing local **AMENDMENT** stating: "Masonry chimneys shall be built and installed in accordance with NFPA211 and shall be lined as per G2425.12".

Section G2427.6.8.3 Category II, III and IV appliances. Added text: "the manufacturer will specify the sizing of the pipe".

Section G2427.8 Venting system termination location. Added Item 5.

Section G2439.4 Dryer exhaust duct power ventilators. Added section.

Section G2439.7.2 Duct installation. Added text: "Ducts shall not be joined with screws or similar fasteners that protrude more than 1/8 inch (3.2 mm) into the inside of the duct".

Mr. Koskela stated the pins could be riveted. Mr. Obermiller suggested an **AMENDMENT** removing the allowance of screws altogether. Staff discussed this option with the Board. Mr. Strand agreed and suggested removing the rest of the sentence after "fasteners".

Section G2439.7.4.3 Dryer exhaust duct power ventilator length. Added section. This is also covered in Section M1502.4.2.

Section G2445 Unvented Room Heaters. Staff recommends continuing the existing local **AMENDMENT** deleting this section in its entirety.

Section G2447.2 Prohibited locations. Exception was added allowing appliances listed for both commercial and domestic use to be installed in any dwelling.

Chapters 25 – Chapters 43 Staff recommends continuing the existing local **AMENDMENT** deleting these chapters in their entirety. These areas are covered by the state plumbing and electrical codes.

Mr. Strand drew the Board's attention to Chapter 44 of the IRC. He noted that there was no amendment to this chapter. He stated that the standards referenced only apply in the scope specified. He explained that the appendices were included for experimentation but that they must be specifically adopted if the jurisdiction wished to enforce them.

Respectfully submitted.

Ron C. Strand
Board Secretary