### CHAPTER 23.110  LOCAL AMENDMENTS TO THE INTERNATIONAL FUEL GAS CODE, 2003 EDITION.

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23.110.100 Local Amendments to the International Fuel Gas Code, 2003 Edition
The amendments to the International Fuel Gas Code are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the section of the International Fuel Gas Code to which the amendments refers, i.e., 23.110.210 refers to amendments to section 210 of the International Fuel Gas Code.

23.110.101.2 Scope
Delete the letter “s” in “Exceptions”.
Delete Exception #1 in its entirety.
Change Exception #2 to Exception #1.

23.110.103 – 23.110.109
Delete sections 103 through 109.

23.110.110 Authority to Render Gas Service.
Add new section to read as follows:

110.1 Unlawful acts. It shall be unlawful for any person, firm, or corporation, excepting an authorized agent or employee of a person, firm, or corporation engaged in the business of furnishing or supplying gas and whose service pipes supply or connect with the particular premises, to turn on or reconnect gas service in or on any premises where and when gas service is, at the time, not being rendered.

110.2 Authority to disconnect. The administrative authority or the serving gas supplier is hereby authorized to disconnect any gas piping or appliance, or both, found not to conform to the requirements of this code or found defective and in such condition as to endanger life or property. Where such disconnection is made, a notice shall be attached to such gas piping, appliance, or both stating the same has been disconnected, together with the reasons therefore.

23.110.303 Appliance Location (LPG Facilities and Piping).
Amend by adding new sections 303.8 and 303.9, to read as follows:

303.8 Liquefied Petroleum Gas Facilities. Liquefied petroleum gas facilities shall not be located in any pit, basement, crawlspace, under show windows, or interior stairways, in engine, boiler, heater, or electric meter rooms. LPG
facilities means tanks, containers, container valves, regulating equipment, meters, and/or appurtenances for the storage and supply of LPG for any building structure or premises.

303.9 **Liquefied Petroleum Gas Piping.** Liquefied petroleum gas piping shall not serve any gas appliance located in a pit or basement where heavier than air gas might collect to form a flammable mixture.

23.110.303.3 **Prohibited Locations.**
Amend section by deleting Exceptions 2, 3, and 4, and add new section 6, as follows:

6. Domestic gas-fired clothes dryers may be installed in bathrooms if provided with make-up air in accordance with section 614.5.

23.110.303.4 **Protection from Damage.**
Add the following paragraphs, 9 through 17:

1. If the equipment platform is a minimum of thirty inches (30") high and the equipment does not extend beyond the face of the platform, additional barriers are not required.
2. If equipment is installed in an alcove, a barrier shall not be required, as long as the equipment does not protrude beyond the face of the wall and the height of the alcove platform, measured from the floor to the top of the platform, is a minimum of thirty inches (30") in height.
3. If the equipment platform is less than thirty inches (30") high, one or more barriers shall be installed.
4. The barriers shall be a minimum thirty inches (30") high and be constructed of a minimum two inch (2") diameter schedule forty (40) iron pipe.
5. The barrier shall have a minimum of six inches (6") setback from the platform or equipment. The maximum unprotected distance shall not exceed five (5) feet.
6. The barrier shall be installed with one of the following methods:
   a. Buried a minimum of two feet (2'-0") deep in compact soil and imbedded in concrete slab; or
   b. Set in a minimum one foot by one foot (1'-0" x 1'-0") square x one foot (1'-0") deep block of concrete (slab included); or
   c. Secured to a wood framed garage floor with flange and stainless steel bolts and imbedded in concrete slab; or
   d. Secured to the concrete slab using a floor flange with a minimum of four (4) 3/8" diameter x 3 ½" long galvanized or stainless steel bolts.
7. Piping is not allowed to be surface mounted on the face of the platform, where it may be subjected to damage.
8. Unit heaters and related piping shall be mounted clear of any potential vehicle interference, per the requirements of chapter 3.
9. Physical clear width and depth of the garage shall be maintained per title 21.

23.110.304 Combustion, Ventilation, and Dilution Air
Amend by adding new sections 304.13 and 304.14 to read as follows:

304.13 LPG Systems. Appliances using LPG shall have two (2) combustion air openings. The lower opening shall be at floor level or below and shall be sloped down toward the exterior. These systems shall be continuously ducted to outside the building.

304.14 Use of underfloor areas for supply of combustion air to LPG burning appliances is prohibited.

23.110.304.1 General
Add the following sentence to the end of section 304.1:

Appliances located in group U garages may obtain combustion, ventilation, and dilution air in accordance with sections 304.5.1 and 304.7.

23.110.304.6
Delete Figure 304.6.1(1).
Delete Figure 304.6.1(2).
Delete Alternate Opening Location in Figure 304.6.2.

23.110.304.8 Engineered Installations
Add new subsection:

Section 304.8.1 Cold Climate Alternate Requirements For Combustion and Ventilation Air.

304.8.1.1 Purpose. The purpose of this section is to provide alternate methods of designing combustion air and ventilation air systems for fuel burning appliances in cold climate regions. Only persons registered to practice engineering in the applicable jurisdiction will be permitted to use these alternate design methods.

304.8.1.2 Scope. The requirements of this section apply to all fuel gas burning appliances.
Exception: Direct vent appliances, listed cooking appliances, appliances having separated combustion system, enclosed furnaces, refrigerators and domestic clothes dryers.

304.8.1.3 Definitions.
Certain words and terms used in this section shall have meanings as listed. The below-listed definitions shall apply to this section only, even though they may differ with broader definitions found elsewhere in the code.

*Combustion air* is air required for stoichiometric combustion, plus excess air, plus flue dilution air.

*Free area* is the net actual open area of a louver, screen, duct, or intake grille.

*Ventilation air* is air required for cooling of the appliance enclosure to maintain temperatures required for proper equipment operation.

304.8.1.4  **General.**

304.8.1.4.1  **Air Supply.** Fuel-burning equipment shall be provided with a sufficient supply of combustion and ventilation air.

304.8.1.4.1.1  **Enclosures Containing Fuel Burning Appliances.** Enclosures shall be provided with minimum unobstructed combustion air openings as specified in section 304.8.1.9 and arranged as specified in sections 304.8.1.5 and 304.8.1.6, and ventilation air systems shall be as specified in section 304.8.1.10.

304.8.1.4.1.2  **Existing Buildings.** When fuel-burning appliances are installed in an existing building containing other fuel-burning equipment, the enclosure shall be provided with sufficient combustion and ventilation air for all fuel-burning equipment contained therein as specified in sections 304.8.1.9 and 304.8.1.10.

304.8.1.5  **Combustion Air Openings.**

304.8.1.5.1  **Location.** The combustion air opening(s) may be located anywhere in the enclosure provided there is an unobstructed area extended to the fire box that does not increase the total combustion air system static pressure requirements.

304.8.1.5.2  **Dampers Prohibited.** Combustion air openings shall not be installed so as to open into construction where fire dampers are required. Volume dampers shall not be installed in combustion air openings.

Exception: Dampers electrically interlocked with the firing cycle of the appliance, so as to prevent operation of the appliance when the dampers are not proven open.

304.8.1.5.3  **Screening.** Combustion air openings shall be covered with corrosion-resistant screen of one-half (1/2) inch (12.8 mm) mesh, except as provided in section 304.8.1.7.3.

Exception: Combustion air openings serving a nonresidential portion of a building may be covered with a screen having openings larger than
one-half (1/2) inch (12.8mm) but in no case larger than one (1) inch (25.4 mm).

304.8.1.6 Sources Of Combustion And Ventilation Air.

304.8.1.6.1 Air from Outside. Combustion and ventilation air obtained from outside the building shall be supplied as follows:
1. Through permanent openings of the required area directly to the outside of the building through the floor, roof, or walls of the appliance enclosure; or
2. Through continuous ducts of the required cross-sectional area extending from the appliance enclosure to the outside of the building.

304.8.1.6.2 Under-Floor Supply. Combustion and ventilation air openings may connect with under-floor areas conforming to the following requirements:
1. Under-floor spaces having unobstructed openings to the exterior, sized to not exceed the maximum system static pressure requirements specified in sections 304.8.1.9 and 304.8.1.10.
2. The height of the under-floor space shall comply with the requirements of the Building Code and be without obstruction to the free flow of air.

304.8.1.6.3 Interior Spaces. Large indoor areas may be used for combustion and/or ventilation air if sufficient infiltration or other outside air supply is available by nature of the building construction, system design, or building use.

304.8.1.6.4 Prohibited Sources. Openings and ducts shall not connect appliance enclosures with space where the operation of a fan may adversely affect the flow of combustion air. Combustion and ventilation air shall not be obtained from a hazardous location or from any area in which objectionable quantities of flammable vapor, lint or dust are given off. Combustion and ventilation air shall not be taken from a machinery room.

304.8.1.7 Combustion And Ventilation Air Ducts.

304.8.1.7.1 General. Combustion and ventilation air ducts shall:
1. Be of galvanized steel complying with chapter 6 or equivalent corrosion-resistant material approved for this use.
2. Have a minimum cross-sectional dimension of three inches (3”).
3. Serve a single appliance enclosure.

304.8.1.7.2 Dampers. Combustion air ducts shall not be installed so as to pass through construction where fire dampers are required, unless properly enclosed in a rated shaft. Volume dampers shall not be installed in combustion air ducts. Exception: Motor operated dampers interlocked with appliance controls to open damper prior to firing appliance are permitted, if damper blade actuated end switches are provided to prevent appliance operation should dampers fail to open.
304.8.1.7.3 **Screen.** Neither end of the ducts terminating in an attic shall be screened.

304.8.1.8 **Special Conditions Created By Mechanical Exhausting Or Fireplaces.**

Operation of exhaust fans, kitchen ventilation systems, clothes dryers or fireplaces shall be considered in determining combustion and ventilation air requirements to avoid unsatisfactory operation of installed fuel burning appliances.

304.8.1.9 **Area Of Combustion Air Openings.**

304.8.1.9.1 **General.** The free area of openings, ducts or plenums, screens and louvers supplying combustion air to enclosures containing fuel-burning appliances shall be as required: The opening(s) shall communicate directly or by means of ducts with outdoors or to such spaces (crawl space) freely communicating with outdoors and shall be sized in accordance with Table No. 304.8.1.1.

304.8.1.10 **Ventilation Air.**

304.8.1.10.1 **General.** In addition to the combustion air required, sufficient ventilation shall be supplied for proper operation of equipment. Ventilation system shall be designed to maintain positive or atmospheric pressures within the enclosure. If exhaust fans are provided, a mechanical make-up air fan shall be installed to make-up exhausted air. Natural or gravity make-up air is not allowed.

**TABLE NO. 304.8.1.1 COMBUSTION AIR SYSTEM DESIGN CRITERIA**

<table>
<thead>
<tr>
<th>Fuels</th>
<th>System Static Pressure Limits1</th>
<th>Combustion Air Requirements</th>
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<td></td>
<td>Atmospheric</td>
<td>Forced Draft</td>
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<td></td>
<td>Draft Hoods</td>
<td>Barometric Dampers</td>
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<tr>
<td>GAS (Natural, Propane, Butane)</td>
<td>0.02” WG</td>
<td>0.02” WG</td>
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**Note 1:** Static pressure values represent maximum static pressure losses across all components of the combustion air system including screens, louvers, ducts and fittings.

**Note 2:** For enclosures containing both atmospheric and forced draft appliances, the most restrictive design requirements shall apply.
1 cu. ft. natural gas requires 9.6 cu. ft. air.

Convert to CF/1000 Btu

\[
\text{GAS: } \frac{9.6 \text{ cu. ft. air}}{1 \text{ cu. ft. gas}} \times \frac{1 \text{ cu. ft. gas}}{1000 \text{ Btu}} = \frac{9.6 \text{ cu. ft. air}}{1000 \text{ Btu}} \text{ (14.4 @ 50% excess)}
\]

*Air at 2000 feet above sea level. Installations above this shall derate appliance output 4%/1000 feet.

**EXAMPLE**: Combustion Air Flow Rates (CFM) per 100,000 Btuh input. Verify heating values and adjust CFM as required.

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<th>STOICHIOMETRIC</th>
<th>COMBUSTION</th>
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<tr>
<td>Natural Gas</td>
<td>16.0 CFM</td>
<td>24 CFM</td>
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<tr>
<td>1000 Btu/cu. ft.</td>
<td>100,000 Btu</td>
<td>100,000 Btuh</td>
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**23.110.304.10 Louvers and Grilles.**
Delete the words “not smaller than 1/4 inch and replace with “of one-half inch (½”) for residential and one-half inch (½”) to up to one inch (1”) for commercial applications.”

**23.110.304.11 Combustion Air Ducts.**
Delete the exception to Item 1 in its entirety.
Delete Item 5 and replace with:

> Combustion air shall not be obtained from the attic, unless prior written approval is obtained from the authority having jurisdiction.

**23.110.304.11.8 Combustion Air Openings vs. Snow Depth**
Insert the following words at the beginning of the paragraph:

> Due to a one foot (1’) anticipated snow depth…

Change the reference of twelve (12) inches (305mm) to twenty-four (24) inches (610mm).

**23.110.305.3 Elevation of Appliances and Other Ignition Sources.**
Amend by deleting section 305.3 and replace with the following:

> Equipment and appliances with components generating a glow, spark, or flame (such as switches, electrical receptacles, thermostats, washing machines, dryers, furnaces, boilers, water heaters, pumps, freezers, refrigerators, motors, etc.) located in spaces of a building where flammable vapors may accumulate due to leakage or spills from fuel tanks of motorized equipment, shall have such ignition sources elevated at least eighteen inches (18”) (457mm) above the floor.

1. Repair garages (S-1 occupancies), aircraft hangars (S-2 occupancies), or fuel dispensing and storage areas are also classified as hazardous locations
by electrical, mechanical, and fire codes, and must meet additional and more restrictive installation requirements.

2. Places with overhead doors where equipment containing combustible fuels may have access, such as areas used for wholesale or warehouse activities (F, M, S-1, or S-2 occupancies) and parking garages (S-2 occupancies) shall comply with the 18” (457mm) requirement for elevation of ignition sources.

3. Private residential garages (U occupancies) shall also comply with the eighteen inches (18”) (457mm) requirement. (Note: Rooms or spaces not part of the habitable living space communicating directly into a garage are considered to be part of the garage.)

Exceptions: Locations where equipment and appliances do not have to be elevated eighteen inches (18”) are occupied spaces designated as habitable (a space in a building for living, sleeping, eating, or cooking. Bathrooms, toilet rooms, closets, hallways, storage or utility spaces, and similar areas are not considered habitable spaces) and separated as described:

A. Habitable portions of a private dwelling unit, separated from the attached garage (U occupancy), by one-hour protection on the garage side with self-closing, gasketed all around, and rated door(s).

B. Areas of a building separated by a minimum one (1) hour occupancy separation protection with a vestibule type room providing a two (2) doorway separation with self-closing, gasketed all around rated doors, from spaces accessible by motorized equipment containing combustible fuels.

23.110.305.9 Aircraft Servicing and Storage Areas.
Amend by adding a new section 305.9 to read as follows:

305.9 Aircraft Servicing and Storage Areas. Overhead heaters installed in aircraft storage or servicing areas shall be at least ten feet (10’) (3048 mm) above or away from the upper surface of wings or engine enclosures of the tallest aircraft which may be housed in the hangar.

23.110.306.3 Furnaces in Strip Mall Ceilings.
Add Exception #3 as follows:

3. The passageway and level surface are not required for replacement of horizontal furnaces located above drop ceilings in strip malls. All other code requirements apply.

23.110.306.4 Appliances Under Floors.
Amend by adding the following as the first sentence:
Installation of appliances in underfloor crawlspaces is prohibited unless prior
written approval is obtained from the administrative authority.

**23.110.306.5 Appliances on Roofs or Elevated Structures.**
Amend by deleting section 306.5 and replace with the following:

A. Where new or replaced equipment and appliances requiring access are
installed on roofs or elevated structures of new or existing buildings, such
access shall be provided by a permanent approved means of access, the
extent of which shall be from grade or floor level to the equipment and
appliances’ level service space. Such access shall be located interior to
the building and shall not require climbing over obstructions greater than
thirty (30) inches (763mm) high or walking on roofs having a slope
greater than four (4) units vertical in twelve (12) units horizontal (33-
percent slope).

B. Permanent ladders installed to provide the required access shall comply
with the following minimum design criteria:
1. Ladders having rung spacing not to exceed fourteen (14) inches
   (356mm) on center.
2. Ladders shall have a toe spacing not less than six (6) inches
   (152mm) deep.
3. There shall be a minimum of eighteen (18) inches (457mm)
   between rails.
4. Rungs shall give a minimum 0.75-inch (19mm) diameter and be
   capable of withstanding a 300-pound (136.1kg) load.
5. Ladders over thirty (30) feet (9144mm) in height shall be provided
   with offset sections and landings capable of withstanding 100
   pounds (488.2 kg/m²) per square foot.

C. Catwalks installed to provide the required access shall be not less than
twenty-four (24) inches (610mm) wide and shall have railings as required
for service platforms.

**Exceptions:**
1. Replaced equipment may be accessed by portable ladder on the
   single story portion of an existing building not exceeding sixteen
   (16) feet (4880mm) in height. If the existing building exceeds
   sixteen (16) feet (4880mm) in height, an approved interior access
   shall be provided.
2. This section shall not apply to Group R-3 occupancies.
3. Existing buildings with an existing approved exterior access that is
   permanently mounted to the structure.

**23.220.306.7 Mezzanine and Platforms.**
Every mezzanine or platform more than eight (8) feet (2438 mm) above the ground or
floor level shall be made accessible by a stairway or ladder fastened to the structure. The
ladder shall be constructed in compliance with the provisions of Local Amendment 23.20.306.5.

23.110.402.3 **Sizing.**
Amend by adding the following sentence at the end of the paragraph:

Section 1217 referenced in tables and figure 12-2 in the Uniform Plumbing Code shall be considered an acceptable method of sizing gas piping.

23.110.403.10.1 **Pipe Joints.**
Amend by adding the following at the end of the paragraph:

All joints in underground ferrous piping shall be welded when any of the following conditions apply:
1. The nominal pipe diameter is 2 ½ inches or larger.
2. The pipe is installed under a driveway.
3. Medium pressure systems.

23.110.403.10.2 **Tubing Joints.**
Amend by adding the following sentence at the end of the paragraph:

All joints in underground copper shall be brazed with wrought copper fittings. No underground joints shall be permitted unless the underground length of run exceeds sixty (60) feet (18.3 m). All pipe to tubing transitions shall be made above ground.

23.110.403.10.4 **Metallic Fittings.**
Amend Item 2 by deleting the words “cast iron.”

Delete Item 5.

Add a new section, **Right and Left Nipples and Couplings**:

9. Where unions are necessary, right and left nipples and couplings shall be used. Ground joint unions may be used at exposed fixture, appliance, or equipment connections and in exposed exterior locations immediately on the discharge side of a building shutoff valve.

23.110.404 **Piping System Installation.**
Add the following paragraphs to read as follows:

404.17 At all points where fuel gas piping enters or leaves the ground, there shall be installed, above ground, an approved, listed connector, capable of absorbing a six-inch (6”) displacement, in any direction, due to frost heave action. A Dormont, series 30 or 31, stainless steel flex is an example of a suitable connector.
**404.18** Flex connectors listed for outdoor use may be used between meter and house main. No flex connector may pass through any wall, partition, panel or other barrier. Solid fittings shall be used on each end.

**404.19** At points where copper tubing type systems enter or leave the ground, they shall be protected from frost heave action by the incorporation of suitable above ground six-inch (6”) (152 mm) radius bends or approved flex connection of equal size.

**404.20** Pounds to inches water column regulators serving mobile homes and connected to copper tubing shall be attached directly to the inlet connection on the exterior of the mobile home, and shall not be located under the mobile home.

**23.110.404.4** Piping Through Foundation Wall.
Delete paragraph in its entirety and replace with the following:

All building fuel gas piping entrances and exits shall be located above grade or in an approved vented vault.

**23.110.404.9** Minimum Burial Depth.
Amend by adding the following sentence to the end of the paragraph:

Plastic and copper gas piping shall have at least eighteen inches (18”) of earth cover or other equivalent protection.

**23.110.044.9.1** Individual Outside Appliances.
Delete this section in its entirety.

**23.110.406.4.1** Test Pressure.
Replace the reference to “1 ½” with “ten (10)”.

Replace the minimum test pressure of three (3) psig with ten (10) psig and add the following sentences at the end of the paragraph:

Required pressure tests of ten (10) psig shall be performed with gauges of 1/10 psi increments or less.

Welded pipe shall be tested with not less than sixty (60) psig test pressures.

The installation of temporary gas shall comply with sections 406.8.1 and 406.8.2.

**23.110.406.8.1** Temporary Gas Installations – Permit Required
A. Temporary gas approval is given to allow “comfort heating” appliances to be used to provide temporary heat to a building or building site prior to the completion of the building’s primary heating system.

B. The most commonly used appliance is a natural gas portable space heater. Other comfort heat appliances allowed for temporary heat purposes are warm air furnaces, boilers, and unit heaters. It is NOT the policy of the Building Safety Division or Enstar Natural Gas Company to allow “decorator fireplaces” or “ranges” to be utilized as temporary heat for buildings. These appliances are not designed or “listed” for such purpose.

C. All appliances used to provide temporary heat for buildings shall be installed in accordance with the manufacturers’ instructions and terms of their listing, with particular attention being paid to the clearances to combustibles from the top, bottom, front, back, and sides of these appliances.

D. Unit heaters used for temporary heat shall be installed per manufacturer’s instructions and listed clearances to combustibles from the top, bottom, front, back, and sides of these appliances.

E. Unit heaters used for temporary heat shall be installed per manufacturer’s instructions and listed clearances to combustibles. The vent connectors shall be graded at one-quarter inch (¼”) per foot slope upward to the outside and it shall be changed to “B” vent at the wall penetration. The “B” vent must maintain its listed clearance to combustibles, extend a minimum of five (5) feet vertically, and be secured.

F. Furnaces used for temporary heat shall comply with the same requirements as for unit heaters as stated above. In addition, the return air for the furnace shall be ducted a minimum of ten (10) feet from the furnace.

G. Portable space heaters shall be provided with one hundred percent (100%) outside air to the back end of the heater. In most cases, the gas regulator attached to these heaters shall be piped to the outside. If the regulator vent discharges, it shall not be allowed to discharge into the space being heated.

H. Gas hose used for temporary heaters shall be a type approved by the Building Safety Division and all manufacturers’ listed clearances shall be maintained. The hose shall have an internal wire mesh or braid and be “kink proof”. Supporting wire shall run the full length of the hose. Each time a hose is moved from one lot to another, it shall be retested with sixty (60) psi air pressure.

23.110.406.8.2 Temporary Gas Installations – Permit Not Required

A permit and inspection shall not be required for residential temporary construction heat serving tented footings and foundations. This provision is for thawing ground and curing concrete, not comfort heat for workers, such as plumbers installing underground. This allowance is limited to portable ‘SURE FLAME’ type heaters and not intended for unit heaters, furnaces, and boilers with special venting considerations. All heaters and hoses shall be of the approved type. Heaters shall be listed by an approved listing agency. All hoses shall have an internal wire mesh or braid, and be “kink proof”. Supporting wire shall run the full length of the hose. One hundred percent (100%) outside air shall be provided to heater at all times. Listed clearances to combustibles shall be maintained. A licensed journeyman plumber or gasfitter shall perform all work.
**23.110.501.7 Connection to Fireplace.**
Delete wording of section 501.7 and replace with the following:

Gas fired appliances shall not be connected to fireplace chimneys without prior approval of the Administrative Authority.

**23.110.501.8 Equipment Not Required To Be Vented.**
Delete Item 8.

**23.110.502 Vents.**
Amend by adding new sections 502.7 and 502.8 to read as follows:

502.7 Venting systems installed exterior to the building outside the thermal envelope shall be enclosed in an insulated (R-19 minimum) shaft. The portion of the vent system above the last roof and its projected plane need not be enclosed. The portion of the venting system passing through an attic space need not be insulated or enclosed.

502.8 Vent terminations penetrating a metal roof with a pitch shall be protected by an ice dam or deflector of an approved type acceptable to the Administrative Authority.

**23.110.503.7.7.1 Gypsum Wall Board (Sheetrock) Clearances.**
Add new paragraph as follows:

GWB shall be considered a noncombustible material when determining minimum required clearances. It should be noted GWB cannot be used to reduce clearances to combustibles. For example, B vents shall be installed with a one inch (1”) minimum clearance from wood, even if the wood is covered with GWB.

**23.110.503.8 Venting System Termination Location.**
Amend by adding new Item 5 to read as follows:

5. An anticipated snow depth of twelve inches (12”) shall be used when determining the manufacturer’s minimum vent termination height. Measurements shall be made to the bottom of the vent outlet.

**23.110.503.10.2.1 General.**
Amend by adding the following at the end of the paragraph:

Single wall material of noncombustible corrosion-resistant material capable of withstanding the flue gas temperatures produced by the appliance, such as in Tables 503.10.2.4 and 506.10.2.5 may be used to vent the following:
A. Vent connector serving a single gas appliance connected to an individual vent system.

B. Vent connector system serving two (2) gas appliances connected to a common vent.

C. Three (3) or more gas appliances connected to a common vent system may have single wall vent connectors to the point of connection to the common vent connector.

D. An engineered system acceptable to the Administrative Authority.

23.110.614.6.1 Clothes Dryer Exhaust Duct Length
Amend by adding a new paragraph to the beginning of Exception #1 and add a new Exception #2:

The maximum length of a clothes dryer exhaust duct may be increased when necessary due to location of the dryer in relationship to an exterior wall or roof, not to exceed the dryer manufacturer’s recommendations. When exceeding the maximum allowable length per code, a dryer placard (available at the Building Safety Department handout shelves) stating the length of the run and the amount of ninety (90) degree elbows shall be posted on the wall next to the dryer exhaust connection. The placard shall be laminated or in a moisture resistant sleeve and be secured using screws, staples, or thumbtacks. Push pins are not acceptable. The duct shall be routed using the shortest possible distance to the exterior.

2. For distances exceeding the dryer manufacturer’s recommendations, a booster fan, listed for the purpose, shall be used for lengths up to the booster fan manufacturer’s recommendations.

23.110.621 Unvented Room Heaters.
Delete section 621 in its entirety.

23.110.623 Cooking Appliances.
Add new subsections 623.7 and 623.8 to read as follows:

623.7 Ventilating Hoods. Ventilating hoods shall be installed over all domestic free standing or built-in ranges, unless the range is otherwise listed for forced down draft ventilation. The hood or ventilation system shall exhaust to exterior of the building.

623.8 Vertical Clearance above Cooking Top. Domestic freestanding or built-in ranges shall have a vertical clearance above the cooking top of not less than thirty (30) inches (762 mm) to unprotected combustible material. When the underside of such combustible material is protected with insulating millboard at least one-quarter (¼) inch (6 mm) thick covered with 0.021-inch-thick (0.41 mm) (No. 28 U.S. gauge) or a metal ventilating hood, the distance shall not be less than twenty-four (24) inches (610 mm).

23.110.629.2 Small Ceramic Kilns—Ventilation
Add a new subsection 629.2 to read as follows:

**Ventilation**
A. A canopy-type hood shall be installed directly above each kiln. The face opening area of the hood shall be equal to or greater than the top horizontal surface area of the kiln. The hood shall be constructed of not less than 0.024-inch (0.61mm) (No. 24 U.S. gauge) galvanized steel or equivalent and be supported at a height of between twelve (12) inches (305 mm) and thirty (30) inches (750 mm) above the kiln by noncombustible supports.

*Exception:* Electric kilns installed with listed exhaust blowers may be used when marked as being suitable for the kiln and installed in accordance with manufacturer’s instructions.

B. Each hood shall be connected to a gravity ventilation duct extending in a vertical direction to outside the building. This duct shall be of the same construction as the hood and shall have a minimum cross-sectional area of not less than one fifteenth of the face opening area of the hood. The duct shall terminate a minimum of twelve (12) inches (305 mm) above any portion of a building within four (4) feet (1.22 m) and terminate no less than four (4) feet (1.22 m) from any openable windows or other openings into the building or adjacent property line. The duct opening to the outside shall be shielded, without reduction of duct area, to prevent entrance of rain into the duct. The duct shall be supported at each section by noncombustible supports.

C. Provisions shall be made for air to enter the room in which a kiln is installed at a rate at least equal to the air being removed through the kiln hood.

23.110.634 **Chimney Damper Opening Area.**
Delete section 634 and Table 634.1 in their entirety.

23.110.**Appendix A  Sizing and Capacities of Gas Piping.**
Adopt Appendix A in its entirety.