



**Summary of Substantive Changes
between the 2016 and the 2006 editions, including the 2007 and 2009 Addenda
of
ANSI Z83.11/CSA 1.8
“Gas Food Service Equipment”
(The addenda are designated ANSI Z83.11a/CSA 1.8a and ANSI Z83.11b/CSA 1.8b)**

Presented to the IAPMO Standards Review Committee on February 12, 2018

General: Changes to this standard will affect currently listed products. The major changes are:

- The scope was expanded to include table side commercial cooking equipment that utilize a self-contained fuel source (See Section 1.1).
- Added a reference to ANSI Z21.92/CSA 6.29 as an acceptable means of burner ignition. (See Section 4.13.2).
- Added Class IIIA-3 Permanent Labels as an acceptable alternative to class IIIA-1 and IIIA-2 markings. (See Section 4.48.1).
- Added a marking requirement, for an appliance provided with a power burner or mechanical draft that also incorporates automatic step-rate or automatic modulating controls, the manufacturer’s minimum hourly Btu input rating. (See Section 4.48.3(f)).
- Additional testing was included for appliances that operates at more than one input rate thru the inclusion of staged or modulating controls. (See Sections 5.1.13 and 5.3.4).

Section 1, Scope: The scope was expanded to include table side commercial cooking equipment that utilize a self-contained fuel source (up to 10 oz butane mixture cylinders) as follows:

1.1

This Standard applies to newly produced gas food service equipment providing coverage for ranges and unit broilers, baking and roasting ovens, counter appliances, deep fat fryers, kettles, steam cookers, steam generators, tableside cooking appliances (see Clause 3, Definitions), hereinafter referred to as either (1) “appliances” constructed entirely of new, unused parts and materials for use in food service centers of commercial, industrial, institutional and public assembly buildings, or (2) “outdoor appliances” constructed entirely of new, unused parts and materials for outdoor use and/or for installation in either carts or trailers:

- a) *for use with natural gas;*
- b) *for use with manufactured gas;*
- c) *for use with mixed gas;*
- d) *for use with propane gas;*
- e) *for use with liquefied petroleum gases (see Clause 5.2-e);*
- f) *for a tableside cooking appliance only, for use with butane gas;*
- g) *for use with LP gas-air mixtures; and*
- h) *for use with either natural, manufactured, or mixed gas and convertible (see Clause 3, Definitions) for use with either propane gas or liquefied petroleum gases.*



Section 4.11.20: A new provision for testing the gas supply lines for appliances intended for outdoor use only was added under subsection (b) as follows

~~1.11~~ [4.11](#) Gas supply lines

~~1.11.20~~ [4.11.20](#)

Appliances intended for outdoor use only, may use flexible hoses for internal gas connections. Flexible hose connections shall comply with:

a)...

...

b) the hose may comply with the construction provisions of the Standard for LP-Gas Hoses, UL 21, or any of the hose standards referenced in “a” above except ANSI Z21.54 • CSA 8.4. In addition, the following tests shall be conducted on the hose and its connection fittings:

...

...

Method of Test

The three test samples used for the test in paragraph 3 shall be used for a connector to be tested under this provision. Each sample is to be connected to a source of hydrostatic pressure which will provide a 1750 psi (12.08 MPa) test pressure, and the outlet of the free end fitting is to be closed. A suitable pressure gauge shall be installed in the pressure supply piping between a positive shutoff valve and the connector sample. Each sample shall contain a 1750 psi (12.08 MPa) test pressure for 1 minute without rupturing or showing evidence of permanent distortion

viii) Provision shall be made so that a hose cannot come into contact with surfaces whose temperatures cause the hose to attain a temperature in excess of 140°F (60 °C) when the tableside cooking gas appliance is operated as outlined in Clause 5.14, Wall, floor and component temperatures.

Section 4.13.2: A reference was added to ANSI Z21.92/CSA 6.29 as an acceptable means of burner ignition as follows:

~~1.14.2~~ [4.13.2](#)

Automatic gas ignition systems and components shall comply with the applicable construction provisions of the Standard for Automatic Gas Ignition Systems and Components, ANSI Z21.20, the Standard for Automatic Gas Ignition Systems and Components, CAN1-6.4, or the Standard for Combustion Safety Controls and Solid State Igniters for Gas and Oil-Burning Equipment, CAN/CSA-C22.2 No 199, or the Standard for Combination Gas Controls for Gas Appliances ANSI Z21.78 • CSA 6.20.

If a piezo-electric spark device is used for pilot burner ignition, it shall comply with the applicable construction provisions of the Standard for Manually Operated Piezo-Electric Spark Gas Ignition Systems and Components, ANSI Z21.77 • CSA 6.23, or the Standard for Manually Operated Electric Gas Ignition Systems and Components, ANSI Z21.92 • CSA 6.29.



Section 4.48, Marking:

Section 4.48.1: Class IIIA-3 Permanent Labels was added as an acceptable alternative to Class IIIA-1 and Class IIIA-2 as follows:

~~1.49.1~~ 4.48.1

Marking material shall be identified by class number and shall meet the following specification. All metal marking materials shall be rustproof. All markings shall be suitable for application to the type of surfaces upon which applied and the temperature determined during the conduct of Clause 5.14, Wall, floor, and component temperatures. Class II and III marking material either shall be recognized as complying with the Standard for Marking and Labeling Systems, UL 969, or shall be tested under Clause 5.34, Marking material adhesion and legibility. The designation of any class of marking shall not preclude the use of marking of a lower number class.

Class I. Integral Marking...

...
...

Class IIIA-3. Permanent Label

Shall be made of material not adversely affected by water, shall be permanently secured by means of a flexible type fastener. These materials shall not be located where they will be exposed to temperatures exceeding 150°F (65.5 °C), as determined during conduct of Clause 5.14, Wall, floor, and component temperatures.

Section 4.48.3: A marking requirement was added as follows:

~~1.49.3~~ 4.48.3 *Each appliance shall bear a name plate, or a combination of adjacent plates, of Class II or Class IIIA marking material located so as to be easily accessible and read when the appliance is in the normally installed position. The removal of a front panel not requiring special tools is permissible. The following shall appear on the plate(s):*

Name plate(s)

f) For an appliance provided with a power burner or mechanical draft that also incorporates automatic step-rate or automatic modulating controls, the manufacturer's minimum hourly Btu input rating.

Section 5.1, General

Section 5.1.13: Additional testing was added for appliances that operate at more than one input rate thru the inclusion of staged or modulating controls as follows:

5.1.13

An appliance provided with a power burner or mechanical draft which also incorporates automatic step-rate or automatic modulating controls, that provide ignition and operation at ratings less than the full input rate, shall also be tested at the minimum test input rate (see Clause 5.3.5) under Clauses 5.4.1, 5.4.2, 5.5.1-a, 5.5.2, 5.5.3, 5.5.5, 5.5.7, 5.7.3, 5.7.4, and Clause 5.7.12.

An appliance provided with a power burner or mechanical draft which also incorporates automatic step-rate or automatic modulating controls, which act to reduce the input rating after ignition of the main burner gas, shall also be tested at the minimum input rate (see Clause 5.3.5) under Clauses 5.4.1, 5.4.2, 5.5.1-b, 5.5.3, 5.5.5, and Clause 5.5.7 "-b", "-c", and "-d".



Section 5.3, Test pressures and burner adjustments: Additional testing requirements for appliances that operates at more than one input rate thru the inclusion of staged or modulating controls were included as follows

5.3.4

For testing purposes of an appliance provided with a power burner or mechanical draft that also incorporates automatic step-rate or automatic modulating controls, the minimum input rate shall be the minimum stable flame or no lower than 87 percent of the minimum input rating specified by the manufacturer.