

## STANDARD INFORMATION

**Amendment 1: See updated impact statement in blue below**

If the project requires any changes to the Certification Data Report outside of Section 1, then this SUN applies.

**Standard:** ANSI Z21.58 / CSA 1.6

**Standard ID:**

Outdoor Cooking Gas Appliances [ANSI Z21.58:2022 Ed.6]

Outdoor Cooking Gas Appliances [CSA 1.6:2022 Ed.6]

**Previous Standard ID:**

Outdoor Cooking Gas Appliances [ANSI Z21.58:2018 Ed.5]

Outdoor Cooking Gas Appliances [CSA 1.6:2018 Ed.5]

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** September 1, 2024

## IMPACT, OVERVIEW, AND ACTION REQUIRED

**Impact Statement:** No action is required for currently certified products. If modifications to the product after the effective date require an evaluation and/or testing, then the product must undergo re-evaluation to the new requirements.

**Overview of Changes:**

- Update of requirements for exposed edges where the user may come in contact
- New requirement covering the use of galvanized steel in the construction of appliances
- New requirement that all gas carrying components and automatic gas ignition systems
- New requirement that the instructions for pressure relief valve outlets
- New requirement for built in grills
- New specific requirement for remote LP gas supply systems
- New requirement for automatic gas ignition systems
- New requirement for the minimum ambient operating temperature
- New test for appliances to be use with two 1 lb cylinders
- New additional test to be performed as part of the wind test
- New Annex with requirements for appliances using smart enabled features

Specific details of new/ revised requirements are found in table below

***Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.***



## STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined out</del> below.</i>
1	Info	<b>Scope</b> <i><b>New clause added;</b></i>
1.13		<b>Smart enabled appliances</b>  Annex B contains provisions that are applicable to a smart enabled appliance.
4	Info	<b>Construction</b>
4.1	Info	<b>General construction and assembly</b>  <b>Manufacturing practice</b>  The general construction and assembly shall be neat and manufactured in accordance with good engineering practice with parts well-fitted and bolts or other fasteners drawn up tightly to give rigidity. Exposed edges, with which the user might reasonably come in contact during normal use or adjustment of the outdoor cooking gas appliance, shall not be sharp. This includes bottoms of legs of portable outdoor cooking appliances that are in contact with the ground. <u>Surfaces that are placed 3 in or closer to the LP gas cylinder shutoff valve handle and that can be contacted while operating the valve shall not have a temperature exceeding those defined in Table 12. The test shall be carried out in accordance with the procedure outlined in Clause 5.21.</u>
		<b>Material temperature suitability</b>  Materials used in the construction of an outdoor cooking gas appliance shall be suitable for temperatures to which they will be exposed in use. Materials used for the cooking grid, the burner(s) and the radiant support grate that comply with Clause 4.2b) are considered to be suitable.
4.1.8		<u>Unprotected AISI Type C1010 series steel shall not be used in burner construction.</u>  <u>Unprotected AISI Type C1010 series steel shall not be used in the construction of the cooking grid.</u>  <u>Galvanized steel shall not be used where it can contact a flame or in any location where the temperature exceeds 500 °F (260 °C) when tested as specified in Clause 5.22 in accordance with Table 13.</u>



CLAUSE	VERDICT	COMMENT
		<b>Gas controls and component materials integrity</b>
		All nonmetallic internal parts of gas controls [see Clause 4.8a)] shall not crack, harden, swell more than 25%, shrink more than 1%, lose more than 10% weight, or otherwise deteriorate sufficiently to permit leakage or cause malfunction when
4.1.14		a) parts made of a compound affected by aging are exposed to air for 70 h at 212 °F (100 °C); and b) parts are immersed for 70 h in normal hexane.
		<u>All gas carrying components and automatic gas ignition systems shall be rated for the minimum ambient operating temperature of either 0 °F (–17.8 °C) or a lower temperature, as specified by the outdoor cooking gas appliance manufacturer.</u>
4.5	Info	<b>Self-contained LP gas supply systems</b>
		<b>General requirements</b>
		Self-contained LP gas supply systems shall meet the following:
4.5.1		<u>e) Instructions relating to mounting of the tank should communicate that the cylinder should be mounted such that the pressure relief valve outlet is not oriented toward the normal operating position of the user [see also Clause 4.25.3c) i) 3)].</u>
		<b>Supplied cylinder</b>
		If supplied, the cylinder shall be constructed and marked in accordance with the Specifications for LP gas Cylinders of the U.S. Department of Transportation (DOT) or CSA B339. If the cylinder provided has a nominal capacity in excess of 2.2 lb (1.0 kg), it shall
4.5.2		d) bear a label on Class IIIA-2 marking material, or printed on the cylinder, containing, at a minimum, the information shown in Figure 4. The label, or printing, letter type shall be “Helvetica” with a minimum letter height of vi) 0.140 in (3.56 mm), which corresponds to <del>18</del> <u>14</u> -point type, for the letters of the statement “FOR OUTDOOR USE ONLY”;
4.6	Info	<b>Enclosures for self-contained LP gas supply systems</b>
		<b>General</b>
		The following general requirements shall apply as follows:
4.6.1		b) The enclosure for the LP gas cylinder shall isolate the cylinder from the burner compartment to provide i) shielding from radiation; ii) a flame barrier; iii) protection from foreign material, such as hot drippings; and <u>iv) for built in grills, a barrier to the compartment from which combustion air is drawn.</u>



CLAUSE	VERDICT	COMMENT
		<b>Ventilation requirements</b>
4.6.2		<p>An enclosure for an LP gas cylinder shall be ventilated by openings at both the upper and lower levels of the enclosure. The effectiveness of the opening(s) for purposes of ventilation shall be determined with the LP gas supply cylinder in place. This shall be accomplished by one of the following:</p> <p>c) For a cylinder enclosure having four sides, a top, and a bottom, and intended for installation in a built-in enclosure:</p> <ul style="list-style-type: none"><li>iii) Every opening shall have a minimum dimension so as to permit the entrance of a <del>1/8 in (3.2 mm)</del> <u>3/16 in (4.8 mm)</u> rod.</li></ul>
		<b><i>New clause added;</i></b>
		<p>For the design of a built-in appliance, the following provisions shall be made:</p> <p>a) Where the LP cylinder enclosure is constructed by the installer, it shall be provided with detailed instructions and diagrams outlining the requirements of the LP cylinder enclosure, such that the resultant construction complies with the requirements outlined in Clauses 4.6.1 and 4.6.2.</p> <p>b) The cylinder enclosure compartment shall be separate from the compartment where combustion air is drawn. Openings in the barrier (between the cylinder enclosure and where the combustion air is drawn)</p> <ul style="list-style-type: none"><li>i) for gas supply conduits, shall have less than 1/4 in (6.4 mm) clearance necessary to route the conduit and shall be located at a level above the top of the supply cylinder; and</li><li>ii) for other service conduits, such as for water, electricity, or waste, shall have less than 1/4 in (6.4 mm) clearance necessary to route the conduit and, if not located at a level above the top of the cylinder, shall be sealed around the conduit.</li></ul>
4.6.3		<p>Ventilation for the enclosure where combustion air is drawn shall be in accordance with the requirements in Clause 4.7a) or b).</p>
		<b><i>New clause added;</i></b>
		<b>Enclosures for built-in grills with remote LP gas supply system</b>
4.7		<p>An enclosure for built in grills with remote LP gas supply systems shall be ventilated by openings at both the upper and lower levels of the enclosure. Ventilation shall be accomplished by one of the following:</p> <p>a) one side of the enclosure, other than the front, shall be completely open; or</p> <p>b) for an enclosure having four sides, a top, and a bottom,</p> <ul style="list-style-type: none"><li>i) at least one ventilation opening (see Clause 3) shall be provided on the exposed exterior side of the enclosure located within 5 in (127 mm) of the top</li></ul>



CLAUSE	VERDICT	COMMENT
		<p>of the enclosure and unobstructed. The opening(s) shall have a total free area of not less than 3 in<sup>2</sup> per 1000 Btu/h (293 W) of the largest single burner capacity;</p> <p>ii) at least one ventilation opening shall be provided on the exposed, exterior side of the enclosure 1 in (25.4 mm) or less from the floor level and shall have a total free area of not less than 3 in<sup>2</sup> per 1000 Btu/h (293 W) of the largest single burner capacity. The upper edge shall be no more than 5 in (127 mm) above the floor level;</p> <p>iii) every opening shall have a minimum dimension so as to permit the entrance of a 3/16 in (4.8 mm) rod;</p> <p>iv) ventilation openings shall not communicate directly with other compartments of the enclosure; and</p> <p>v) ventilation openings shall not be located in front of the appliance above floor level.</p>
4.15	Info	<b>Ignition systems for oven burners</b>
		<b>Automatic ignition system components</b>
4.15.3		<p>Automatic ignition system components shall meet the following criteria:</p> <p><u>m) Automatic gas ignition systems shall be rated for the minimum ambient operating temperature of either 0 °F (–17.8 °C) or a lower temperature, as specified by the outdoor cooking gas appliance manufacturer.</u></p>
4.25	Info	<b>Instructions</b>
		<b>Assembly, installation, and operation</b>
		<p>The following instructions shall accompany the outdoor cooking gas appliance:</p> <p>a) for all outdoor cooking gas appliances,</p> <p><u>iv) a statement immediately following Item iii), as illustrated in Annex D:</u></p> <p><u>1) “An appliance is considered to be outdoors if installed with shelter no more inclusive than with walls on three sides, but with no overhead cover; all openings must be permanently open; sliding doors, garage doors, windows, or screened openings are not considered as permanent openings”;</u></p> <p><u>2) “An appliance is considered to be outdoors if installed with shelter no more inclusive than within a partial enclosure that includes an overhead cover and no more than two sidewalls. The sidewalls may be parallel, as in a breezeway, or at right angles to each other; all openings must be permanently open; sliding doors, garage doors, windows, or screened openings are not considered as permanent openings”;</u> or</p> <p><u>3) “An appliance is considered to be outdoors if installed with shelter no more inclusive than within a partial enclosure that includes an overhead cover and three sidewalls, as long as 30% or more of the horizontal periphery of the enclosure is permanently open. All openings must be permanently open;</u></p>
4.25.3		



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- sliding doors, garage doors, windows, or screened openings are not considered as permanent openings”;  
vii) explicit information specifying the necessity of maintaining proper clearances from combustible construction, the specific minimum clearances from such construction to the sides and back of the outdoor cooking gas appliance;  
xv) the minimum ambient operating temperature for safe use of the appliance shall be stated. The suitability of this statement shall be examined by the testing agency with respect to the listing of the gas carrying components utilized;
- b) for portable outdoor cooking gas appliances, a statement that the outdoor cooking gas appliance must not be used under overhead combustible construction;  
c) for an outdoor cooking gas appliance designed for use with a self-contained LP gas supply system,  
xv) for appliances designed to use a CGA 791 connection, a statement and accompanying illustration that indicates that the cylinder face elastomeric face seal element on these devices could, over time, show marked and visible damage or deterioration that might cause a leak even with the connection tightened; a statement that a visual inspection for the seal must be carried out every time a LP gas cylinder is replace or refilled; and a statement that any LP-gas cylinder showing signs of damage or deterioration as those illustrated in Figure 5, including visible cracks and pitting, must be returned unused to the seller;
- d) for built-in outdoor cooking gas appliances,  
i) a statement  
1) that the outdoor cooking gas appliance must not be installed under overhead combustible construction; or  
2) that if installed under overhead combustible construction, the appliance must be installed in conjunction with a suitable UL 710– or ULC S646–approved heavy duty vent hood only and additional instructions indicating that the vent hood must be placed in operation during operation of the appliance;
- e) for post-mounted outdoor cooking gas appliances, a statement  
i) that in-ground metallic posts must be protected against corrosion as warranted by soil conditions. b protection shall be provided as needed with a suitable coating to retard the effects of corrosion conditions existing in local areas; and that the outdoor cooking gas appliance must not be installed under overhead combustible construction; or  
ii) that if installed under overhead combustible construction, the appliance must be installed in conjunction with a suitable UL 710– or ULC-S646–approved heavy duty vent hood only and additional instructions indicating that the vent hood must be placed in operation during operation of the appliance;



CLAUSE	VERDICT	COMMENT
4.26	Info	<b>Markings</b>
		<b>Rating plate</b>
4.26.2		<p>Each outdoor cooking gas appliance shall bear a plate, or a combination of adjacent plates, of Class IIIA-2 marking material located on the outdoor cooking gas appliance or supporting structure where it can be easily read and on which shall appear the following:</p> <p>h) identification of this Standard by indicating this edition of the standard with the following markings: “CSA/ANSI Z21.58-(year) • CSA 1.6-(year)”;</p> <p>k) the statement: “Minimum ambient operating temperature: °F (&lt;enter value&gt;) °C (&lt;enter value&gt;)”;</p>
5	Info	<b>Performance</b>
5.14	Info	<b>Dual cylinder manifold</b>
		<b><i>New clause added;</i></b>
		<b>Method of test for 1 lb (0.45 kg) cylinders</b>
5.14.2		<p>Note: This method of test is applied when two 1 lb cylinders are manifolded to a single supply line.</p> <p>A pressure of 125 psi (862 kPa) air shall be applied to either cylinder connection device. The flow of air out of the open connection shall not exceed 12.2 in<sup>3</sup>/h (200 cm<sup>3</sup>/h).</p>
		<b>Wind tests</b>
5.25		<p>The burner(s) of an outdoor cooking gas appliance shall remain burning and shall not ignite cotton cloth when the outdoor cooking gas appliance is exposed to a wind velocity of 10 mph (4.47 m/s) in accordance with the following method of test.</p> <p>Testing shall be conducted as follows:</p> <p><u>e) Following the performance of this test, the appliance shall be operated with all burners set to the minimum operating (low) position and the appliance operated for 2 min with the lid or cover open and 2 min with the lid or cover closed without extinguishing the flame. Partial extinguishing may be done as long as the flame recovers when the wind ceases.</u></p>



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*New annex added;*

**Provisions for the safety of smart enabled outdoor cooking gas appliances (optional)**

Annex B

These requirements apply to the open top broiler function of an outdoor cooking gas appliance intended to receive and respond to communication signals from a remote user interface, such as a smart phone or computer. See standard for details.

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