# STANDARDS UPDATE NOTICE (SUN)
# ISSUED: December 19, 2024

## STANDARD INFORMATION

**Standard:** ANSI/PGMA G300
**Standard ID:** Safety and Performance of Portable Generators [ANSI/PGMA G300:2023]
**Previous Standard ID:** Safety and Performance of Portable Generators [ANSI/PGMA G300:2018]

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** **January 1, 2026**

## IMPACT, OVERVIEW, AND ACTION REQUIRED

**Impact Statement:** Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

**Overview of Changes:**

- Revision to CO levels
- Addition of requirements for hoses
- New requirements for sealing compounds
- New requirements for natural gas
- Revised requirements for multiple tests

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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 |
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| | | *Additions to existing requirements are <u>underlined</u> and deletions are shown ~~lined out~~ below.* |
| | | |
| | | **Scope**<br><br>This standard applies to 15 kW or smaller; single phase; 300 V or lower; 60 hertz; gasoline, liquefied petroleum gas (LPG), natural gas (NG) and diesel portable generators intended for multiple use and intended to be moved, though not necessarily with wheels. <u>They are provided with receptacle outlets for alternating current (AC) output circuits.</u> |
| 1 | | This standard does not apply to:<br><br>− permanent stationary generators;<br>− 50 hertz generators;<br>− marine generators;<br>− trailer mounted generators;<br>− generators permanently mounted in motor homes and recreational vehicles;<br>− generators intended to be pulled by vehicles; and<br>− welding power sources. |
| 3 | Info | **General Construction** |
| 3.9 | Info | **Carbon Monoxide** |
| 3.9.1 | | **CO shutoff system**<br><br>The control system and sensing element of a CO shutoff system shall be constructed to operate in its working environment and throughout its design life.<br><br>The control system and sensing element shall comply with the following tests specified in UL 2034. The tests a) through e) are made on separate samples. However, at the manufacturer's discretion, multiple tests may be performed on a sample.<br><br>a) Selectivity Test (42.1 through 42.6 only)<br>b) Dust Test (58.1 through 58.3 only), except that the test is performed with either<br>− the control system and sensing element only, placed in its intended orientation; or<br>− the control system and sensing element mounted in its intended enclosure and placed in its intended orientation.<br>c) Vibration Test (60.1, 60.3 and 60.4 only), except that for 60.3, the frequency of vibration is to be varied from 10 to 75 cycles per second in increments of 5 cycles |

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| | | per second until a resonant frequency is obtained. If no resonant frequency is obtained, vibrate at 75 cycles per second for 4 hours.<br>d) Corrosion Test (76.1 and 76.2 only), except that the test is performed with either<br>− the control system and sensing element only, placed in its intended orientation; or<br>− the control system and sensing element mounted in its intended enclosure and placed in its intended orientation<br>e) Variable Ambient Temperature and Humidity Test (75.1, 75.3 and 75.4 only).<br><br>After each of the tests a) through e) above, the control system and sensing element shall pass the following test:<br><br>The control system and sensing element is conditioned for 48 hours at<br><br>• (23 ± 3) °C ((73.4 ± 5) °F);<br>• (50 ± 20) percent relative humidity; and<br>• (20.9 ± 0.2) percent oxygen concentration by volume.<br><br>Following the above conditioning, the control system and sensing element is placed in a test chamber that incorporates a CO analyzer. Carbon monoxide is introduced in the test chamber so that a uniform concentration of ~~810-850~~ 610 - 650 ppm is achieved in the test chamber within three to five minutes. The control system shall generate a signal to shut off the portable generator engine before a carbon monoxide concentration exceeding ~~800~~ 600 ppm is present in the test chamber.<br><br>After the signal to shut off the portable generator engine is generated, a simulated portable generator engine start signal is sent to the control system, while maintaining a uniform concentration of ~~810-850~~ 610 - 650 ppm in the test chamber. The control system shall generate a signal to shut off the portable generator engine within 30 seconds of the introduction of the simulated portable generator engine start signal.<br>Purge the test chamber with fresh air to remove all CO and clear any accumulated CO control system history. Introduce carbon monoxide into the test chamber such that a uniform concentration of 410 -430 ppm is achieved within three to five minutes. The control system shall generate a signal to shut off the portable generator engine before the 10 minute rolling average exceeds 400 ppm. The 10 minute rolling average is calculated by the average measurement of the CO analyzer over the prior 10 minute period, with the initial 10 minute time period starting at or before the introduction of carbon monoxide into the test chamber. |

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| 4 | Info | **Mechanical Construction** |
| 4.2 | Info | **Fuel Systems** |
| 4.2.2 | Info | **Liquefied Petroleum Gas (LPG)** |
| 4.2.2.5 | | **LP Flexible Hose, Couplings and Connectors**<br><br>Hoses that are subject to vibration and movement shall be flexible.<br><br>LP flexible hoses, couplings and connectors shall be listed to either UL 21, UL569 or the equivalent.<br><br>Hose shall be fabricated of materials that are resistant to the action of LP-Gas in liquid and vapor phases, and oil. If wire braid is used for reinforcing the hose, it shall be of corrosion-resistant material such as stainless steel.<br><br>Compliance is checked by inspection. |
| 4.2.2.6 | | ***New clause added;***<br><br>**Sealing Compound**<br><br>Sealing compounds used on threaded joints of the LPG system shall be suitable for the purpose and resistant to the action of LPG.<br><br>Compliance is checked by inspection. |
| 4.2.3 | | ***New section added;***<br><br>**Natural Gas (NG)**<br><br>Provision shall be made to compensate for expansion, contraction, jarring, and vibration. This may be accomplished by flexible connections.<br><br>See standard for details. |
| Table 1 | | ***Table 1 RMS Voltage 31-300 has been modified.***<br><br>See standard for details. |

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| 6 | Info | **Testing** |
| 6.2 | Info | **Safety Tests** |
| 6.2.1 | Info | **Temperature Test** |
| 6.2.1.1 | | The portable generator shall be operated at nameplate rated wattage (+0/-10%) until all temperatures are stabilized. The unit is considered to be at temperature stabilization when the engine oil temperature varies by less than 2°C (4°F) over 3 consecutive readings taken 15 minutes apart. For portable generators fitted with any auxiliary windings, the testing shall be done with the maximum load applied to the auxiliary windings. The maximum load is considered to be:<br><br>− the maximum load recommended by the manufacturer for auxiliary windings associated with a user-controlled item, such as a 12 VDC outlet; or<br>− the normal load for auxiliary windings associated with a non-user controlled item, when the portable generator is operated at nameplate rated wattage (+0/-10%).<br><br>NOTE A portable generator may have auxiliary windings that are separate from the main power windings. The following are examples of auxiliary windings:<br><br>− Portable generators that contain DPE (displaced phase excitation) windings that feed the brushes;<br>− A winding associated with a 12 VDC outlet;<br>− A winding associated with a display; or<br>− A fuel solenoid. |
| 6.2.11 | Info | **Carbon Monoxide Test** |
| 6.2.11.1 | | **Criteria**<br><br>The portable generator engine shall shut off before the CO concentration measured in parts per million by volume (ppm) exceeds<br><br>− ~~800~~ 600 ppm; or<br><br>− a 10 minute rolling average of 400 ppm<br><br>as measured by the CO analyzer.<br><br>The portable generator engine is considered to be shut off when<br><br>− the engine ignition device is turned off (for spark ignited engines); or<br>− the fuel supply is shut off (for compression ignition engines). |

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| 6.2.11.2 | Info | **Test procedure** |
| 6.2.11.2.1 | | The onboard fuel tank shall be filled to the manufacturer's recommended full level at the start of the test. For LPG, the largest capacity tank recommended by the manufacturer shall be used. <u>For NG, connect to a utility supply or equivalent.</u> Energy storage devices relied on by the CO shutoff system shall be completely discharged or removed at the start of the test (e.g. batteries, capacitors). Batteries are considered to be completely discharged if a new non-rechargeable battery or a fully charged rechargeable battery is discharged for 20 hours at a current equal to 0.05 times the battery's rated amp-hour capacity |
| 7 | Info | **Product and Packaging Labeling** |
| 7.2 | Info | **Hazard Labels and Safety Instructions** |
| 7.2.2 | Info | **Product Markings** |
| 7.2.2.6 | | ***New clause added;***<br><br>Portable generators that run on NG and/or LPG fuel shall be marked in accordance with subclause 301.5 of the International Fuel Gas Code (IFGC). |
| 7.2.3 | Info | **Packaging Markings** |
| 7.2.3.2 | | Portable generator packaging shall be marked with the following text or equivalent wording:<br><br>~~This product complies with the ANSI/PGMA G300-2018 standard.~~<br><br><u>This product complies with the ANSI/PGMA G300-2023 standard.</u> |
| 7.4 | | ***New clause added;***<br><br>**Packaging**<br><br>Package labeling content is at the manufacturer’s discretion with the exception of markings as detailed in 7.1.1 and 7.2.3.<br><br>Compliance is checked by inspection. |

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| 8 | Info | **Operators Manual, Operating Instructions and Warnings** |
| 8.6 | | ***New clause added;***<br><br>For portable generators that use NG fuel:<br><br>− an instruction shall be provided to comply with applicable local codes for installation of the fuel supply system;<br>− an instruction shall be provided that the installation of the natural gas fuel supply system shall be performed by a licensed contractor, a local natural gas utility, or equivalent;<br>− an instruction shall be provided on how to connect the portable generator's natural gas supply;<br>− information shall be provided on the allowable input pressure limits to the NG regulator.<br><br>Compliance is checked by inspection. |