



## Interpretation Requests – ANSI/PGMA G300 Standard

Date	Standard	Interpretation Request	PGMA Response
23 JUL 2015	ANSI/PGMA G300-2015	In subclause 4.1.1.4, What measurement(s) need to be made to demonstrate compliance with this requirement, i.e. what is "normal operation"?	The PGMA Technical Committee considers "normal operation" to mean operation of the portable generator at any load from no-load to rated load, within the rated ambient conditions for the portable generator.
02 FEB 2018	ANSI/PGMA G300-2015	Subclause 6.2.1.1 refers to “auxiliary windings”. What is an auxiliary winding?	<p>A portable generator may have auxiliary windings that are separate from the main power windings. Below are some examples of auxiliary windings:</p> <ul style="list-style-type: none"> <li>• Portable generators that contain DPE (displaced phase excitation) windings that feed the brushes</li> <li>• A winding associated with a 12 VDC outlet</li> <li>• A winding associated with a display</li> </ul>

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			<ul style="list-style-type: none"> <li>• A fuel solenoid</li> </ul> <p>If a portable generator has auxiliary windings, then the temperature test of 6.2.1 is performed with a maximum load applied to these windings. The "maximum load" is considered to be:</p> <ul style="list-style-type: none"> <li>• the maximum load recommended by the manufacturer for auxiliary windings associated with a user-controlled item, such as a 12 VDC outlet; or</li> <li>• 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%).</li> </ul>
19 OCT 2018	ANSI/PGMA G300-2018	<p>Question: Which of the following defines “Shut Off” as required by the standard?</p> <p>(1) When the CO sensor/Module sends a signal for the generator to shut off (and turns on the CO indicator light)</p> <p>(2) When the Engine Ignition Device is turned off (so that the engine will stop)</p>	<p>In subclause 6.2.11.1 of ANSI/PGMA G300-2018, the portable generator engine is considered to be shut off when</p> <ul style="list-style-type: none"> <li>• the engine ignition device is turned off (for spark ignited engines); or</li> <li>• the fuel supply is shut off (for compression ignition engines).</li> </ul>

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		<p>(3) When the engine actually stops rotating (RPM = 0)</p> <p>The time between (1) and (2) should be very short (milliseconds?).</p> <p>The time between (2) and (3) can vary by engine/generator and can be longer than milliseconds.</p> <p>We think that (2) is a reasonable interpretation of the standard's requirement for "shut off." At point (2), the CO indicator is on/blinking and the engine has initiated its stopping.</p> <p>So, if (2) meets the definition of "shut off," as long as the ignition cut happens before the CO sensor in the test room reaches 800 ppm (for example), the generator would pass the acceptance criteria.</p>	
23 APR 2019	ANSI/PGMA G300-2018	<p>We are considering having a RESET switch that must be pressed before the engine can be restarted, after a CO Shutoff or System Fault Event</p> <p>The RESET switch is an additional safeguard for the user to be aware that the generator stopped due to a CO shutoff system related issue.</p>	<p>Having a two-step process after a CO Shutoff or System Fault Event not only meets the intent and spirit of the ANSI/PGMA G300 standard, but exceeds the requirements.</p> <p>In the case of 3.9.1.3.1, pressing the reset button can be considered to be part of the engine restarting process.</p>

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		<p>This would result in a two-step engine restart process.</p> <p>So, to restart the engine, the user would have to (1) push the RESET switch, then (2) restart the engine (either by a pull cord or electric start).</p> <p>When the engine is shut down, for either CO or System Fault, the indication will start blinking, per the standard requirement, and blink for at least 5 minutes.</p> <p>If the user goes to restart the engine before the 5 minutes has expired the following would happen:</p> <ol style="list-style-type: none"> <li>(1) User presses the RESET switch</li> <li>(2) The blinking light stops blinking, as soon as the RESET switch is pressed</li> <li>(3) User restarts the engine</li> </ol> <p>The above design, technically does not meet the letter of the standard, because the light stops blinking at the point of the RESET switch being pressed, not at the point of engine restart.</p>	<p>In the case of 3.9.1.3.2, pressing the reset button can be considered to be an action that clears the fault, so that turning the notification off would be acceptable.</p>

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		<p>We believe that the above described design meets the spirit of the standard, but it may not meet the “letter” of the standard (which states that the “The notification shall remain for a minimum of 5 minutes after a shutoff occurs unless the portable generator engine is restarted.” This is because the indication stops at the RESET switch push and not at the engine restart.</p> <p>REQUEST: We believe that the above described design is essentially compliant with the G300 standard &amp; would like an official confirmation from PGMA.</p>	
20 FEB 2020	ANSI/PGMA G300-2018	<p>Section 5.1.2.3 of the G300-2018 standard states, “Receptacles shall comply with ANSI/NEMA WD6, unless they are used solely for the purpose of connecting portable generators in parallel.”</p> <p>For the application of a 125/250-50A 3-pole, 4 wire ground, locking receptacle (NEMA # L14-50R) isn’t available in the market. (No one appears to make or sell such a receptacle.)</p> <p>However, there is a non-NEMA receptacle for the same application (California Standard CS6369) which is sold by several manufacturers.</p>	<p>The PGMA Technical Committee agrees in principle that use of the CS6369 receptacle is acceptable in this case, since a NEMA L14-50R receptacle is not commercially available. This will be clarified in the next revision of the PGMA G300 standard.</p>

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		<p>The manufacturers state that they are compliant with UL 498 and CSA C22.2 No. 42 standards.</p> <p>We think using the CS6369 receptacle should be okay and appropriate and should be considered acceptable to meet the G300-2018 standard.</p> <p>The problem is that the G300-2018 standard doesn't allow anything other than NEMA compliant receptacles.</p> <p>To solve the problem, we have a request.</p> <p><b>REQUEST:</b> We would like PGMA to provide an official interpretation to allow the use of the CS6369 receptacle instead of the NEMA L14-50R receptacle (due to it not being available).</p>	
13 MAR 2020	ANSI/PGMA G300-2018	<p>There is a point requiring clarification regarding section 3.9.1.1.</p> <p>For the "end of life" functionality regarding the CO shutdown module, the indication signal can be generated by either an internal timer (requiring a battery back-up) or a self-diagnostic test.</p> <p>Please confirm our understanding is correct.</p>	<p>The ANSI/PGMA G300-2018 standard does not specify how to determine "end of life" in this subclause. It is only required that:</p> <p><b>"A portable generator system for controlling CO exposure shall contain a self monitoring system to detect the correct operation of the carbon monoxide sensing element, loss of power source for the portable</b></p>

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			<p data-bbox="1455 235 1850 337"><b>generator system for controlling CO exposure and end of life."</b></p> <p data-bbox="1360 381 1892 521">The method for determining end of life is completely up to the manufacturer and is not prescribed in ANSI/PGMA G300-2018.</p>
18 JAN 2021	ANSI/PGMA G300-2018	<p data-bbox="787 565 1331 743">We were curious on whether you felt a test result to subclause 5.3 of CSA TIL No. D-39 sufficiently 'prove' that the CO label meets the regulatory / PGMA clause 7.2.2.2 requirement.</p>	<p data-bbox="1360 565 1881 964">If a label passes the "method of test" specified in subclause 5.3 of CSA TIL No. D-39, it would not be sufficient to satisfy the requirements of 7.2.2.2 of ANSI/PGMA G300-2018. The reason is because the "method of test" in the CSA TIL only covers heat and moisture and does not cover other environmental factors that could be expected during operation and storage, such as UV exposure and exposure to fuel.</p>
29 JAN 2021	ANSI/PGMA G300-2018	<p data-bbox="787 1006 1314 1109">The last dash of subclause 5.1.5.2 states "the 250 V single-phase output circuits are protected by multi-pole protectors".</p> <p data-bbox="787 1154 1314 1256">Does this mean we need to have one-double pole circuit breaker? OR, we can use 2 individual circuit breakers?</p>	<p data-bbox="1360 1006 1892 1256">One double-pole circuit breaker would be needed to fulfill the requirement in the last dash. This is because both ungrounded conductors in a 250V single-phase output circuit would need to be disconnected at the same time in the event of an overcurrent condition.</p>

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29 JAN 2021	ANSI/PGMA G300-2018	<p>In the dashed item of subclause 8.3.1, it states “There is a permanent conductor between the <b>portable generator</b> stator winding and the frame”. Similarly, in the first dash of subclause 8.3.3, it states “The <b>portable generator</b> stator winding is isolated from the frame and from the AC <b>receptacle</b> ground pin”.</p> <p>Recently there are many big size inverter generators produced in the market with 120V/240V output. Would the above statements remain accurate in the case of an inverter generator where the neutral-ground jumper occurs between the inverter module output Neutral and ground however the stator output still isolated from the ground?</p> <p>I feel we need alternative statement for inverter generators type if applicable.</p>	<p>In the case of an inverter-type portable generator, the phrase “stator winding” could be replaced by “inverter module”.</p> <p>This is permitted since both subclauses state that “the operator’s manual shall include the following wording or equivalent”.</p>
10 MAR 2021	ANSI/PGMA G300-2018	<p>Section 3.7. Is an ignition key switch (normally supplied on electric start generators) considered an “engine cutoff means” with respect to the requirements of 3.7, or must there be some other additional method of shutting down the engine? This would be the usual OFF/ON/START switch.</p>	<p>An ignition key switch would be considered to be an engine cutoff means.</p>



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10 MAR 2021	ANSI/PGMA G300-2018	Section 3.9.1.1. The possible faults that may be applied for the test are not specified, nor are the end-of-life parameters. How to design for tests that may be arbitrary and not defined ahead of the test?	Each manufacturer is allowed to decide the possible faults or end of life parameters (use their engineering judgement) based on the technology they are using in their product.
10 MAR 2021	ANSI/PGMA G300-2018	Section 3.9.1.3. For generators equipped with a radio frequency (non-wired) remote start feature, is the remote start feature considered a “redundant remote control” with respect to the standard and as such is not required to have any CO monitor notification at the remote itself?	It would be redundant if the generator already has the same functions (start, stop, etc.) and can be operated fully without the remote.
10 MAR 2021	ANSI/PGMA G300-2018	Section 4.1.1.1.2. For the purposes of this section, if the CO monitor in the generator inhibits successful starting of the generator by the remote by keeping the ignition off (engine kill applied), does that comply with the intent of this section to disable remote start until the engine is started locally?	Yes.

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15 SEP 21	ANSI/PGMA G300-2018	<p>Would it be safe to say that subclause; <i>4.2.2.5 LP Flexible Hose, Couplings and Connectors</i></p> <p>Should have been written as follows in order to match the order of the requirements?</p> <p><i>4.2.2.5 Couplings, Connectors and LP Flexible Hose</i></p>	<p>The subclause title and the order of requirements in the subclause are not related.</p> <p>UL 569 covers pigtailed and flexible hose connectors used in the assembly of fuel-supply systems, as well as hose without end-connection fittings that is used to manufacture flexible hose connectors. Additional requirements for hose materials are provided in the third paragraph of 4.2.2.5.</p>
23 JUN 2022	ANSI/PGMA G300-2018	<p>A third-party lab is interpreting this subclause to mean that internal electronics found inside or behind portable generator front panels would also be required to meet at least one of the three methods noted in 7.3.3. Is this correct, or is the intention that 7.3.3 only applies to an external ground connection point intended for field grounding?</p>	<p>Subclause 7.3.3 only applies to the field grounding means described in subclause 5.5.1. It does not apply to any other grounding points that may exist on a portable generator, such as any grounding points within electrical components or assemblies located inside a portable generator or behind portable generator front panels.</p>