



U.S. CONSUMER PRODUCT SAFETY COMMISSION  
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March 6, 2015

Mr. Joseph Harding  
Technical Director  
Portable Generator Manufacturers Association  
1300 Sumner Ave.  
Cleveland, OH 44115-2851

SUBJ: CPSC Staff Comments on BSR/PGMA G300-201x, *Safety and Performance of Portable Generators* dated January 30, 2015

REF: Correspondence from PGMA dated February 3, 2015, including the subject standard and compilation of canvass member's comments on version dated October 28, 2014

Dear Mr. Harding:

Thank you for providing the U.S. Consumer Product Safety Commission (CPSC) staff an opportunity to comment on the Portable Generator Manufacturers Association's (PGMA) draft voluntary standard, BSR/PGMA G300-201x, *Safety and Performance of Portable Generators*. Similar to the comments staff provided on the first draft of the standard<sup>1</sup>, this letter provides staff's comments on the second draft, dated January 30, 2015, for which PGMA is seeking recognition as an American National Standard.<sup>2</sup> PGMA revised the standard following canvass members' initial set of comments, which you provided in your correspondence dated February 3, 2015. As noted previously, CPSC is a nonvoting canvass member, and as such, provides these comments without a ballot.

In response to staff's comment about the lack of technical requirements to address the carbon monoxide (CO) poisoning hazard, PGMA's technical committee noted that PGMA and several of its members are active in the Underwriters Laboratories (UL) task group, whose mission is to develop a proposal to address this hazard. Staff greatly appreciates PGMA's active participation on the UL task group. As noted in comments by canvass member Sonya Bird, UL is continuing to develop and improve requirements, including technical requirements to address the CO poisoning hazard, for their safety standard for portable generators, UL 2201, and will also seek ANSI approval on their updated standard. Staff urges PGMA and its

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<sup>1</sup> <http://www.cpsc.gov/Global/Regulations-Laws-and-Standards/Voluntary-Standards/Portable-Generators/CPSCstafflettertoPGMAregardingG300draftstandarddated122015.pdf>.

<sup>2</sup> The views expressed in this letter are those of the CPSC staff, and they have not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.

members to help ensure that the CO emissions requirements that the UL task group is developing are put forward to the standards technical panel (STP) for UL 2201, and that as members of the STP, PGMA members will support their inclusion in UL 2201, as this is UL's stated goal for the outcome of the task group.

Regarding the PGMA technical committee's proposed and accepted change for the temperature test described in Section 6.2.1.1, CPSC staff disagrees with the committee for reasons provided in a related comment by canvass member Steve Oxtoby. Mr. Oxtoby noted that the temperature limits provided in Table 3 of Section 6.2.1 exceed those in related standards, including UL 1446, UL 2200, UL 2201, and CSA C22.2 No. 100-14. The committee responded that using a portable generator is regarded to be similar to that of a standby generator, and thus, the committee chose to use the limits in Table 4 of CSA C22.2 No. 100-14. While the temperatures listed are from the CSA C22.2 no.100 standard for standby generators, staff notes that, to comply with this standard, the generator must be loaded to 110 percent of its rated power for 2 hours. The draft standard only requires 90 percent of the rated load be applied and the engine oil temperature be stable. Furthermore, staff notes that the temperature tests in both UL 2200 and UL 2201 are conducted at full rated load, and the temperature limits are all lower than those proposed by PGMA. Staff believes that the temperature test should be run at the maximum load that the output overcurrent protection device will sustain to be representative of thermal stresses to which the alternator windings can be subjected.

The committee's response to staff's comment on the rain test does not address staff's concern or the concern expressed by canvass member Joseph Riehl, in which he noted that the rain test in UL 2201 offers a safer, more complete means of assuring product safety. The committee responded by stating that the purpose of the rain test in UL 2201 is to ensure that a portable generator will operate in the rain, but that PGMA G300 standard includes portable generators that are not designed to be operated in the rain. This response appears to conflict with the response in the paragraph above, in which the committee stated that using a portable generator is regarded to be similar to that of a standby generator. Standby generators are intended to be operated in all conditions, including rain. Furthermore, staff notes that UL 2200 has the same rain test requirements as those in UL 2201. Even if the intent is not to operate the generator in the rain, the test prescribed in 6.2.10 (6.2.11 in the first draft), in which the wetted generator is wiped off and then run for 15 minutes before a dielectric voltage measurement is taken, is not representative of worst case for a generator exposed to rain while not in use (*e.g.*, during storage or transport). Staff believes the PGMA G300 rain test should be the same as the rain test in UL 2200 and UL 2201.

Regarding the committee's response to comments made on Section 6.2.8, Ground Fault Circuit Interrupter (GFCI) Endurance Test, CPSC staff disagrees with the committee. The committee agreed with the commenter to remove the endurance test because the standard includes that GFCI's must meet UL 943, which has a separate endurance test. Staff notes that the endurance tests provided in Paragraph 6.14 in UL 943 do not include the GFCI being subjected to the physical effects that would be experienced in a generator application, such as mechanical vibration. The endurance test in 6.2.8, as originally drafted, should be kept in its entirety and should not be deleted.

Regarding the committee's response to comments made on Section 5.1.2.5, staff agrees with the committee. The exception for a GFCI cord set, as permitted by TIA 1117, was an emergency measure to allow existing generators to continue to be used. The addition of this alternate method is not adequate in place of GFCI protection devices permanently installed as part of the generators output power distribution system.

Thank you for the opportunity to review and comment on PGMA's draft safety standard. I look forward to continuing to work with the PGMA and its members on both the BSR/PGMA and UL voluntary standards to improve the safety of portable generators.

Sincerely,

Janet L. Buyer  
Project Manager, Portable Generator Project

cc: Colin Church, CPSC Voluntary Standards Coordinator