



U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20207

January 31, 2005

Ms. Heather Sakellariou
Secretary for STP 2201
Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, IL 60062

Re: Request for STP Ballots and Comments on UL correspondence dated December 10, 2004
pertaining to Subject 2201 *Portable Engine Generator Assemblies*

Dear Ms. Sakellariou:

This letter presents the U.S. Consumer Product Safety Commission (CPSC) staff's comments regarding the subject standard. Please note that the views and comments contained in this letter were prepared by the CPSC staff, have not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.

The CPSC staff believes that improvements to the proposed standard are needed before it is recognized as an American National Standards Institute (ANSI) standard. As stated previously in correspondence from CPSC staff dated 5/8/03, 10/22/03, and 9/14/04 to UL, the CPSC staff believes that the proposed standard does not adequately address the carbon monoxide (CO) poisoning hazard posed by portable generators.¹ The proposed standard only addresses this hazard in the Markings and Instruction Manual sections. CPSC staff believes that this is insufficient.

In the previous correspondence, CPSC staff requested incorporation of weatherization requirements and other performance requirements that would address consumer exposure to unsafe CO emissions from the generator engine. However, UL stated in its 12/10/04 correspondence that the proposed standard would move forward without these requirements and that "eventually" such requirements would be considered. With increasing consumer use of generators, staff is very concerned about this hazard. Staff again reiterates its recommendation for the standards technical panel (STP) to immediately form one or more working groups to develop additional requirements to adequately address the CO poisoning hazard.

CPSC staff offers the following comments on the proposed standard contained in UL's 12/10/04 correspondence:

¹ There have been 228 CO poisoning fatalities associated with portable generators reported to the CPSC (as of March 1, 2004) for the 14-year period of 1990 through 2003. This count is the unweighted, actual number in the CPSC files associated with generators; it is not a statistical sample and national totals may not be derived from it. (Carlson, Susan, *Incidents, Deaths, and In-Depth Investigations Associated with Carbon Monoxide and Engine-Driven Tools, 1990-2003*, CPSC Memorandum to Janet L. Buyer, Project Manager, U.S. Consumer Product Safety Commission, Washington, D.C., March 8, 2004.)

- Concerning the proposed standard's cautionary markings, CPSC staff believes that a better approach may be to specify the required content of the warning as opposed to the specific wording and pictogram that are proposed in Section 41.3.3 and Figure 41.1, respectively. Specifically, staff suggests that Section 41.3.3 could be changed to:

- 41.3.3. The generator shall include a warning label about the carbon-monoxide hazard posed by the generator. This warning label shall use the signal word "DANGER" and shall include the following information:
- 1) Indoor use of a generator can kill quickly.
 - 2) Generators should be used outdoors only, and away from garages and open windows.
 - 3) Generators produce carbon monoxide, a poisonous gas you cannot see or smell.

The advantage of this approach is that it identifies key pieces of information that must appear in the label, but still provides the manufacturers with flexibility in the specific language used to convey this information effectively, and to choose whether or not to use a pictogram to do so. Once field testing of the specific proposed language has been completed, the committee can consider including specific language in the standard. Also, staff agrees with the currently proposed Section 41.3.3.1; however, in Section 41.3.3.2, staff suggests changing "...is to appear next to the signal word..." to "...is to appear immediately before and next to the signal word..."

- Concerning Section 41.3.1, staff suggests that the warning label message text be not less than 1/8 inch (3.2 cm) and that the letter height of "DANGER" or "WARNING" be required to be at least 50% greater than the height of a capital H in the majority of the remaining warning label message text. These suggestions are consistent with ANSI Z535.4-2002, *American National Standard for Product Safety Signs and Labels*.
- Concerning the proposed requirements for the instruction manual, staff suggests that Section 42.1.2 should also include a requirement for the manufacturer to describe the proper placement of the generator with wording such as, "The first step in the operating instructions shall describe where to operate the generator and how to select an appropriate site." This would appear immediately before the currently proposed wording in that section.
- Concerning Section 42.1.3, the order and the wording of the proposed warning information is confusing. It refers to "Poisonous gases that can be harmful or fatal" well before mentioning that "Generator exhaust contains carbon monoxide – a poisonous gas..." The latter should be presented before the former. Also, the standard should require that this warning information be embedded within the operating instructions of the instruction manual in addition to any safety section the manual may include. This will help reinforce the warnings and help ensure that the consumer will read it.
- Lastly, since UL requested in its 12/10/04 correspondence (on page A22) a detailed proposal for a packaging label for future consideration, staff offers the following proposed text for inclusion within Section 41.3 Cautionary Markings:

- 41.3.5 The packaging of the generator shall include a warning label located on the primary display panel about the carbon monoxide hazard posed by the generator, about the need to have a safe location to run the generator, and about the generator's intended use. This warning label shall use the signal word "DANGER" and shall include the following information:
- 1) Indoor use of a generator can kill quickly.
 - 2) Generators produce carbon monoxide, a poisonous gas you cannot see or smell.
 - 3) Before purchasing the generator, people should make sure they have a place to run the generator safely to avoid carbon monoxide poisoning. This location must be outdoors, away from garages and open windows, and protected from rain and snow.
 - 4) The portable generator is not meant to be used as a permanent backup-power system for the home. A permanently installed stationary generator is designed to be safely used for this specific purpose.

Thank you for the opportunity to provide these comments to the STP. CPSC staff is pleased to continue to work with UL and other STP members on UL 2201.

Sincerely,

Janet L. Buyer
Project Manager