

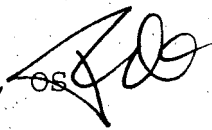


United States  
**CONSUMER PRODUCT SAFETY COMMISSION**  
Bethesda, Maryland 20814

**MEMORANDUM**

**DATE:** November 14, 2006

**TO :** ES

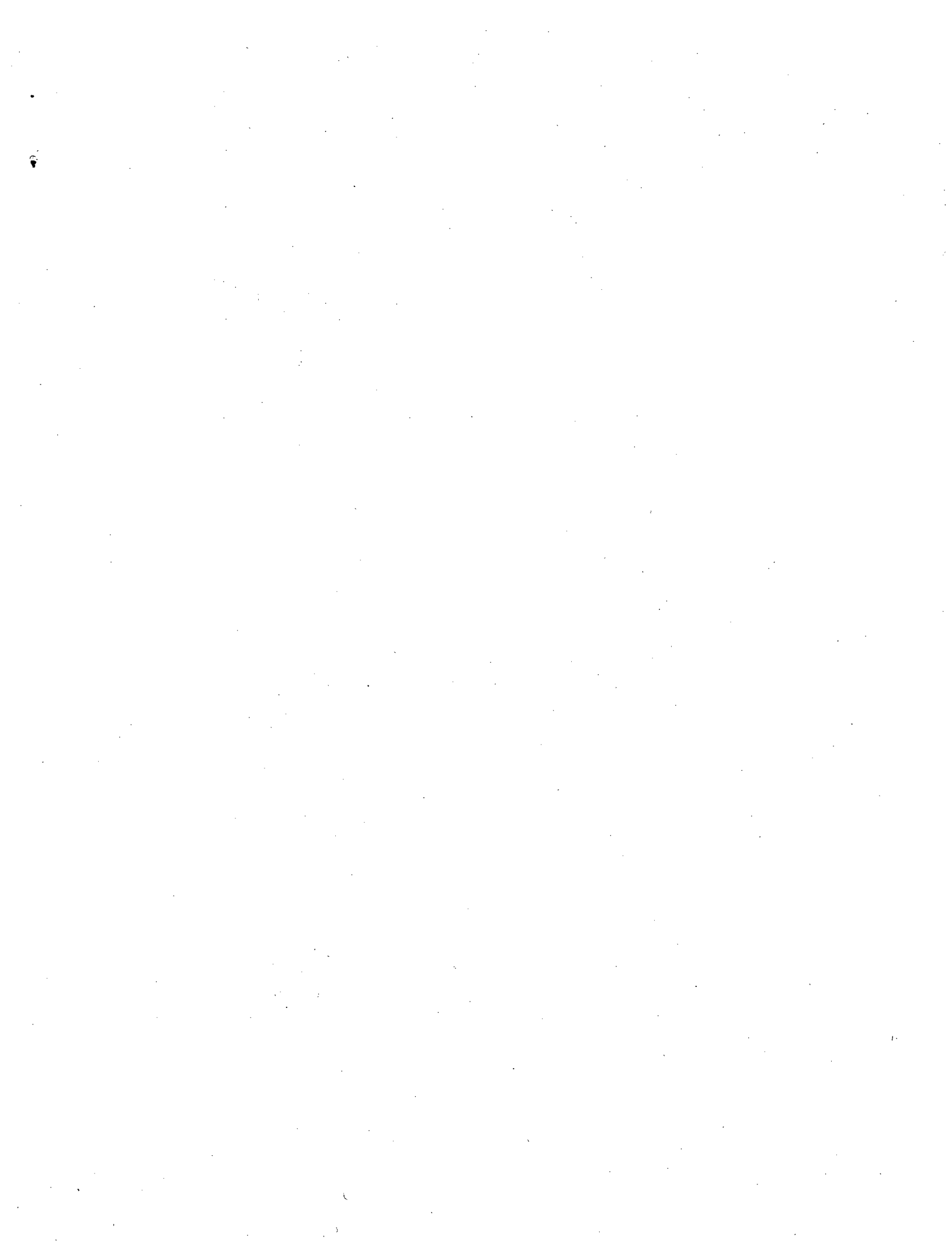
**Through:** Todd A. Stevenson, Secretary, OS 

**FROM :** Martha A. Kosh, OS

**SUBJECT:** Portable Generators; Notice of Proposed Rulemaking;  
Proposed Labeling Requirements

ATTACHED ARE COMMENTS ON THE CC 07-2

<u>COMMENT</u>	<u>DATE</u>	<u>SIGNED BY</u>	<u>AFFILIATION</u>
CC 07-2-1	8/21/06	John Walsh	Johnww1422@aol.com
CC 07-2-2	8/22/06	Larry Dick Tech. Supervisor	<u>Larry.Dick@enbridge.com</u>
CC 07-2-3	8/22/06	Marie Tweetie	<u>tweetiemarie1954@yahoo.com</u>
CC 07-2-4	8/22/06	W. Lentz Battalion Chief	<u>William.Lentz@greensboro-nc.gov</u>
CC 07-2-5	8/22/06	L Golembiewski RN	Block Institute 376 Bay 44th St Brooklyn, NY 11214
CC 07-2-6	8/22/06	Marida Hout	<u>MaridaLH@aol.com</u>
CC 07-2-7	8/24/06	Denise Victor	<u>dvictor6@juno.com</u>
CC 07-2-8	8/31/06	G. Greenberg	<u>gngreenberg@gmail.com</u>
CC 07-2-9	9/01/06	Curtis Falany	3107 Sammonds Rd. Plant City, FL 33563



Portable Generators; Notice of Proposed Rulemaking; Proposed Labeling Requirements

CC 07-2-10	9/01/06	Damon Scott	scd3@scd3@cdc.gov
CC 07-2-11	9/12/06	Victor Serby	New York State Licensed Professional Engineer 255 Hewlett Neck Rd Woodmere, NY 11598
CC 07-2-12	9/19/06	Graham Sills	<a href="mailto:graham@jinhsinho.com.tw">graham@jinhsinho.com.tw</a>
CC 07-2-13	10/04/06	Brian Lee	991 NE Kirsten Place Corvallis, OR 97330
CC 07-2-14	10/06/06	H. Frumkin Director	Department of Health and Human Services Centers for Disease Control and Prevention Atlanta, GA 30341
CC 07-2-15	11/02/06	T. Uchino Supervisor	Yamaha Motor Co., LTD 2500 Shingai, Iwata, Shizuoka 438-8501 JAPAN
CC 07-2-16	11/07/06	Michael Brown Atty	Brown & Gidding, PC 3201 New Mexico Ave, NW Suite 242 Washington, DC 20016
CC 07-2-17	11/07/06	David Murray	Willkie Farr & Gallagher 1875 K St, NW Washington, DC 20006
CC 07-2-18	11/07/06	Donald Mays Sr. Director  P. Sawchuk Program Leader  Janell Duncan Sr. Counsel	Consumers Union 1101 17 <sup>th</sup> St, NW, #500 Washington, DC 20036
CC 07-2-19	11/08/06	Kunio Hori	Daishin Industries ltd 1520-1, Funatsuke Yoro-Cho Yoro-Gun, Gifu 503-1382 JAPAN

Port Gen - 1

**Stevenson, Todd A.**

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**From:** Johnww1422@aol.com

**Sent:** Monday, August 21, 2006 9:26 PM

**To:** Stevenson, Todd A.

**Subject:** Re: Release #06-239 New Warning Label for Portable Generators

Dear Sirs:

In response to your invitation to comment on proposed new carbon monoxide warning labels on

portable generator equipments. The addition of another label, possibly in multiple languages is a nice gesture but lacks positive certainty to achieve your intent.

Have you considered a carbon monoxide monitor as an integral part of the unit, being powered by the unit when it is in operation. A simple search of the web provided the following site that

addresses CO monitors and grades them <http://www.consumersearch.com/>.

Have a wonderful tomorrow!

John Walsh



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August 22,  
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 The biggest monitors have interference eavesdropping eliminated the digital on the Grace monitor. Re better than monitor in r

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*Post  
6/22/06* 2

**Stevenson, Todd A.**

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**From:** Larry Dick [Larry.Dick@enbridge.com]  
**Sent:** Tuesday, August 22, 2006 7:20 AM  
**To:** Stevenson, Todd A.  
**Subject:** New Warning Label for Portable Generators

Good Day

I believe you are on the right track with the new proposed labels.

However, was there any consideration as to the distance a Generator should be placed from a home, windows or any other fresh air intake.

Since you are showing a generator away from a house with the arrow, could you not include a distance of at least 10 feet. I think this would be beneficial to anyone using it.

The shown distance may put the real danger in perspective

Larry Dick  
Technical Supervisor  
Engineering Operations  
Engineering Standards & Technical Services

Port  
Gen 3**Stevenson, Todd A.**

**From:** Tweetie [tweetiemarie1954@yahoo.com]  
**Sent:** Tuesday, August 22, 2006 12:23 AM.  
**To:** Stevenson, Todd A.  
**Subject:** comment on gas powered generators

I subscribe to the CPSC recall list & appreciate the service you provide to consumers. Thank You!

It is strange that your email regarding new warning labels for gas powered generators would come to me today.

I'm including a link to our local daily newspaper (Council Bluffs, Iowa):

THE DAILY NONPAREIL

<http://www.nonpareilonline.com/site/news.cfm?>

[newsid=17091047&BRD=2703&PAG=461&dept\\_id=555106&rft=6](http://www.nonpareilonline.com/site/news.cfm?newsid=17091047&BRD=2703&PAG=461&dept_id=555106&rft=6)

Perhaps if the warning labels had made it onto the generator sooner, one more life could have been saved. This man may have thought he was safe since he was working a distance away from the generator and in an enclosed office!

### Man dies from carbon monoxide poisoning

08/21/2006

Email to a friend  Post a Comment  Printer-friendly

**A Council Bluffs man died after apparently being overcome by carbon monoxide gas Sunday evening.**

**Council Bluffs Fire and Rescue and Council Bluffs Police officers were dispatched to American Pumping Service at 2626 Ninth Ave., at 6:30 p.m. on Sunday after receiving a report of an unconscious man. Upon arriving on scene, firefighters entered the building and discovered Richard W. Crowder, 62, unconscious.**

**Sgt. Pat Toscano said that a preliminary investigation indicated that a gasoline-powered generator was running and filled the building with carbon monoxide gas. Crowder was working in the office area of the building, away from the generator.**

**Rescue crews transported Crowder to Jennie Edmundson Hospital where he was pronounced dead.**

**Toscano said that at this time, no foul play or other suspicious activity is suspected.**

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**-Chad Nation**

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4

**Stevenson, Todd A.**

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**From:** Lentz, William [William.Lentz@greensboro-nc.gov]  
**Sent:** Tuesday, August 22, 2006 8:52 AM  
**To:** Stevenson, Todd A.  
**Attachments:** 06169.jpg

The two way arrow in the bottom right picture to me gives an impression that the generator can be used outside as well as inside the house. I think the arrow should be one way only pointing to the direction of outside. Take care

***Battalion Chief William (Bill) Lentz***  
**Assistant Fire Marshal/Investigations/Pub.Ed.**  
**Greensboro Fire Department/Fire Prevention**  
Office: (336) 373-2108  
Mobile: (336) 430-6038  
Fax: (336) 412-6207  
[william.lentz@greensboro-nc.gov](mailto:william.lentz@greensboro-nc.gov)

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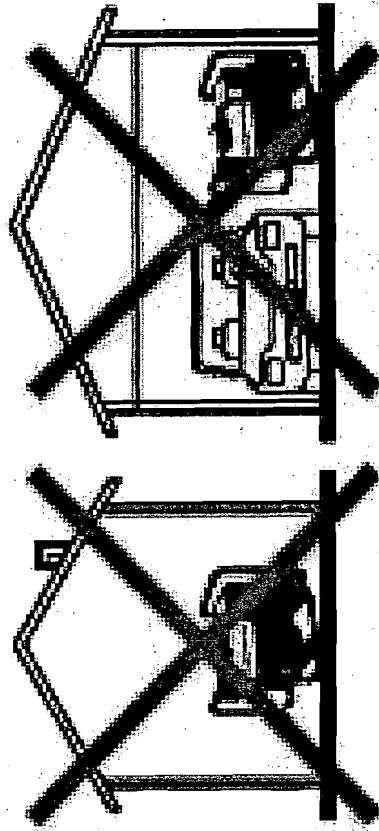
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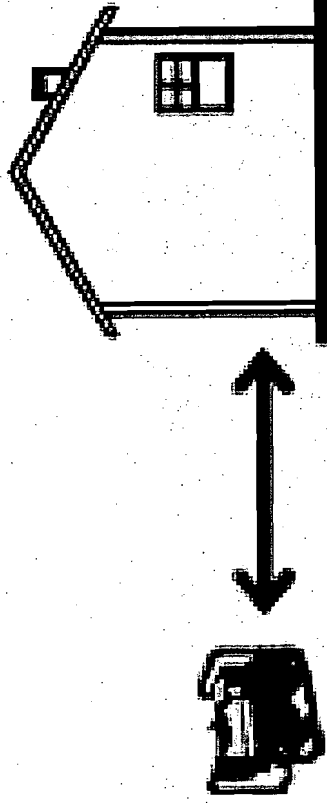
# **▲ DANGER**

**Using a generator indoors WILL KILL YOU IN MINUTES.**

**Exhaust contains carbon monoxide, a poison gas you cannot see or smell.**



**NEVER use in the home or in partly enclosed areas such as garages.**



**ONLY use outdoors and far from open windows, doors, and vents.**

Port  
Gm  
5

**Stevenson, Todd A.**

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**From:** Lucille Golembiewski [lgolembiewski@blockinstitute.org]

**Sent:** Tuesday, August 22, 2006 8:46 AM

**To:** Stevenson, Todd A.

Excellent precaution to add the warning label on portable generators.

Not enough people realize it also needs to be away from a window.

Can footage distance be added? Just a thought.

Lucille Golembiewski  
Registered Nurse  
Block Institute  
376 Bay 44th Street  
Brooklyn New York 11214  
[lgolembiewski@blockinstitute.org](mailto:lgolembiewski@blockinstitute.org)  
(V) 718.906.5452  
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*Power Generator***Stevenson, Todd A.**

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**From:** Information Center  
**Sent:** Tuesday, August 22, 2006 11:09 AM  
**To:** 'MaridaLH@aol.com'  
**Subject:** RE: gasoline powered generator

Hello,

We have forwarded your comments to our Office of the Secretary (OS) within the agency and we thank you for taking the time to provide us with your point of view.

mij

---

**From:** MaridaLH@aol.com [mailto:MaridaLH@aol.com]  
**Sent:** Monday, August 21, 2006 9:23 PM  
**To:** Information Center  
**Subject:** gasoline powered generator

*I see that a new regulation will be coming out for generators. I have a comment. Approx. 2 years ago, we experienced an ice storm in Mansfield, Ohio. My family was without electricity for over 4 days. We were fortunate to be able to purchase a generator when we were w/o electricity for over 12 hrs. Anyway, the purpose of my comment is: As I recall, the instructions for the generator said not to use an extension cord that was longer than 15'. We had to use a longer cord because of plugging it in the basement. So we tried to use the shortest possible length we could use although it was longer than the 15'. This meant putting the generator in our double garage. We opened our double garage door 1/2 way & also opened the door to the back of the garage all the way. We did have an extension cord running into our home which meant that our kitchen door was cracked open approx. 1/2". My husband is a stickler for following directions so he had to get up at 3AM to check the oil in the generator. When he got up, he noticed our garage was filled with a foggy type of smoke. Waking the family up, to ask if we were okay, he found out that two of us had headaches & the other one was okay. He moved the generator to the back yard & our headaches went away. We also had to use a 30' extension cord to do this.*

*I guess my point is, the generator manufacturers need to realize that a long extension cord will have to be used in most cases. The fact that the instructions told us to use the short length was the reason for us putting the generator in our garage. We thought we were safe because of leaving the double garage door up 1/2 way and leaving the back door to the garage all the way open. We were surprised to learn that having our kitchen door open a minimum of 1/2" was putting our lives in jeopardy. Of course, when we moved the generator to our back porch, which was immediately adjacent to the back door of our garage, our headaches went away.*

*Thank you for your time,  
Marida Hout  
Mansfield, Ohio*

8/22/2006



*Port  
Comments 7*

**Stevenson, Todd A.**

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**From:** dvictor6@juno.com  
**Sent:** Thursday, August 24, 2006 3:44 PM  
**To:** Stevenson, Todd A.  
**Subject:** RE: NPR Proposing New Warning Label for Portable Generators

RE: NPR Proposing New Warning Label for Portable Generators

I think this is a great idea - anything to help educate people that Generators emit CO and warn them of its deadly effects.

Denise  
Aurora, IL





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## Read Messages

[create](#)**Amazing & Preventible environ. disease outbreak in my town:**

2002-12-13 06:49:00 &lt;Gary

After years of monitoring carefully performed Environmental Justice research regarding risk assessment of geographic health effects associated with poverty and residence, I was struck by the recent outbreak of Carbon Monoxide poisoning in my own community.

What do you think about an ethnicity-associated odds-ratio of 28.4 !?

The underlying facts:

On Wed Dec 4, much of the eastern US experienced a major winter storm. In North Carolina, this was manifest with freezing rain, which froze onto all outdoor surfaces, including every tree branch. The resulting falling timber knocked out electric power to 1.7 Million homes in the state.

Restoration efforts are still not complete. The main power supplier, Duke Power, stated that only 90% of homes had power restored after a full week. My own home was without power for 6 days.  
<http://www.heraldsun.com/durham/4-298187.html>

During the period of blackout, the temperature remained quite cold, but shelters opened and run by the Red Cross were available but often unused. Apparently, residents of the area turned to a variety of non-electric heat, and many were unaware of the dangers of fuel combustion in range of their home's breathing air.

More than 300 individuals were hospitalized to treat CO-poisoning. Duke Medical Center has a hyperbaric chamber.

Of those hospitalized, 70%(!!) were categorized as Hispanic.  
<http://www.heraldsun.com/evergreen/93-270453.html>

Among the population of Durham County, the 2000 US Census found only 7.6% of our county were categorized as "Persons of Hispanic or Latino origin." Statewide, this proportion is even lower: 4.7%  
<http://quickfacts.census.gov/qfd/states/37/37063.html>

We can assume that many of these new immigrants are missed by the census (especially those here without papers), and that the proportion is higher in 2002 than in 2000 (the number of Hispanic residents rose 8-fold! from 1990 to 2000). Nonetheless, this is a breathtaking predominance of risk in one population segment.

Just a flash calculation of an odds ratio for hospitalization among Durham County residents from CO-poisoning, yields a relative risk of from Hispanic ethnicity of more than 28!

If we use the data for the state (the likely at-risk population), the crude odds ratio is 47.3.

Even if we arbitrarily DOUBLE the assumed proportion of residents in our area who are Hispanic, the Durham county data show still more than thirteen times the rate among non-Hispanics.

Poverty may also be considered an explanation (as in other Environmental Justice associations). As explained in the local paper, of the Hispanic proportion detected by the 2000 US Census, 26% were below federal poverty guidelines. It's surely higher than that if we recognize the census' undercount.  
<http://www.heraldsun.com/evergreen/93-270453.html>

Nonetheless, this is a HIGHLY preventible disease. Unlike other effects of poverty, it doesn't require intense remedies of

infrastructure, massive development of physical resources, major abatement of toxic deposits or resisted modification of personal lifestyles. It simply requires directed warnings to the expected victims.

Educational efforts are essential to bring recognition of safe and unsafe non-electric heating options to Spanish language formats, including radio, newspapers, churches, and community agencies. Sadly, even though the risk is concentrated in time to events like this last week, the outreach needs to occur BEFORE the crisis, because the means of distribution are gone when the community is without power.

We knew that this storm was coming. Apparently the utility companies were ready for massive outages, including arrangements for borrowed equipment and labor for power restoration.

I didn't hear a single warning about CO risks on English-language radio or TV... and expect there was no alarm sent through Spanish media either.

Past CO outbreaks have noted the predominance of new immigrants. In a winter storm in 1993, 50% of CO-poisoned patients in Washington state were non-English speakers.

<http://www.cdc.gov/mmwr/preview/mmwrhtml/00019587.htm>

Hopefully, this danger will be recognized and the lessons applied nation-wide. I'd be interested to hear if other communities have taken the necessary steps to prevent this horrifying epidemic.

Thanks,

- Gary Greenberg, MD MPH

--

Gary N. Greenberg, MD MPH      Sysop / Moderator Occ-Env-Med-L Maillist  
gary.greenberg@duke.edu      Duke Occupat, Environ, Int & Fam Medicine  
OEM-L Maillist Website:      <http://occhealthnews.net>

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Port  
Generators  
9

FOR IMMEDIATE RELEASE

Portable Generators and Surge Protectors can make a Fiery Combination

Curtis E. Falany, P.E.  
3107 Sammonds Road  
Plant City, FL 33563

1 September 2006

For more information, contact Mr. Falany at 813-752-9243 or 813-716-2582 (cell.)

This is the time of year when small, portable generators often become the mainstay of hurricane victims. This is a caution to the users of those portable generators regarding their use with 'surge' strips.

During the last two hurricane seasons, I have had the opportunity to observe the heat related failure of several surge strips. The strips failed when they were used with small portable electric generator sets. The failure mode was most often melting but some strips also failed with the discharge of smoke and sparks.

You are probably familiar with these surge strips. They consist of a short power cord, an 'On-Off' switch and several 120 volt receptacles. Sometime the strips include a power light or a status light. The strips I observed fail were all sold under major brand names.

The generator sets involved were consistently inexpensive sets with what is described as an electronic generator or electronic alternator. All of the sets involved generated at 120/240 volts, 60 Hertz, single phase, with capacities of less than 9 KW. Their country of origin was consistently China.

After I observed a few failures, I became curious and conducted my own brief informal investigation of the phenomenon. Several generator sets were obtained from stores or associates. Surge strips were obtained from my office spare parts. A test configuration was developed which included a generator, surge strip, and load. An adaptor was also built to provide a neutral to ground bond.

Each surge strip and load combination was first tested with the normal domestic electric supply. No failures or significant heating was detected.

Generators, adaptors, strips, and loads were tested in different combinations. The load in no case exceeded the rated capacity of the strip. The generators involved ranged in output from 1350 watts to 8550 watts.

In all, we destroyed four power strips using unrecognized brands of inexpensive generators

originating in Chinese. No strips were destroyed using generators bearing easily recognized US or Japanese brands regardless of their country of origin.

Where possible, the output voltage of each generator was measured under three conditions; without load, while in test, and with a resistive load. All tested generators measured in the range of 120 to 130 volts using a standard RMS voltmeter.


An attempt was made to observe the output voltage waveform under the test load. Some of the generators destroyed the surge strip before the waveform could be checked. Those generators subsequently had their waveform checked with no load and with a resistive load of approximately one-half their rated output. The output voltage waveform of the offending generators was found to be very badly formed.

My conclusion, based on this informal study, is that the surge strips were not at fault and the generator sets were the cause of the failure. The output waveform of the offending generators contained voltage spikes that frequently or continuously exceed the threshold or clamp level of the surge suppressors in the strip. Further, there were enough of these spikes, or they were of sufficient duration, that they contained enough energy to overheat the strips causing elevated temperatures, melting, and heat related failures.


---

*Curtis E. Falany is a Professional Engineer and Master Electrician with over thirty years of experience. Mr. Falany lives and works in Plant City, FL*

image URL = [HTTP://www.falany.com/cef/images/curtis1-5x7.jpeg](http://www.falany.com/cef/images/curtis1-5x7.jpeg)

 Attachments can contain viruses that may harm your computer. Attachments may not display correctly.

**Stevenson, Todd A.**

**From:** Information Center **Sent:** Fri 9/15/2006 4:59 PM  
**To:** 'cefalany@cmax2.com'  
**Cc:**  
**Subject:** FW: Portable Generators and Surge Protectors  
**Attachments:**  Portable Generators and Surge Protectors.pdf(31KB)

Hello,

We have forwarded your concerns/comments to another department within the agency for review. If additional information is needed, we will contact you directly.

mlj

-----Original Message-----

**From:** c. e. falany [<mailto:cefalany@cmax2.com>]  
**Sent:** Friday, September 15, 2006 2:14 PM  
**To:** Information Center  
**Subject:** Portable Generators and Surge Protectors

Attached is a brief article about problems found with Portable Generators that may be of interest to you.

Curtis E. Falany, PE  
Forensic Engineer  
cell: 813-716-2582  
fax: 813-752-3121

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10

**Stevenson, Todd A.**

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**From:** Buyer, Janet L.  
**Sent:** Friday, September 01, 2006 5:30 PM  
**To:** Stevenson, Todd A.  
**Subject:** FW: EPA Response to CPSC's Generator Label  
**Attachments:** low literacy test of CDC drawing and text 6.doc

I think the e-mail I sent you didn't have this attachment to it for you to include with the EPA's comments on the NPR.

---

**From:** Wolfson, Scott J.  
**Sent:** Thursday, August 31, 2006 11:22 AM  
**To:** Elder, Jacqueline; Howell, Robert J.; Edwards, Erlinda M.; McLaurin, Hugh M.; Buyer, Janet L.; Smith, Timothy P.; Mullan, John G.; Schoem, Marc J.; Semple, Patricia M.; Martin, Lowell F.; Heh, Scott R.; Vallese, Julie M.  
**Subject:** FW: EPA Response to CPSC's Generator Label

As requested....

---

**From:** Damon, Scott (CDC/CCEHIP/NCEH) [mailto:scd3@cdc.gov]  
**Sent:** Wednesday, August 30, 2006 2:02 PM  
**To:** Wolfson, Scott J.; Vallese, Julie M.  
**Subject:** RE: Generator Label

Here's the EPA focus group report.

This was EPA's reply to some questions I immediately had about the study:

Scott -

yes, the label was explained to the participants

the following is the language that tested well for our low literacy flood booklet & is in the current draft, this is designed for several pages with drawings, I'd be happy to share the final portable generator drawing once I get it, if you're interested, you could use it for the label also - I'll give you call with more detail - Laura

draft language

Sometimes the power goes out after a flood. So, some people use machines called portable generators for electricity during flood cleanup.

The exhaust or fumes from a portable generator could kill you in minutes if you breath it in!

Use portable generators OUTSIDE and far away from the building.

-----  
 Do not use portable generators inside your house or garage.

Do not put portable generators on balconies or near doors, vents, or windows.

Do not use portable generators near where you or your children are sleeping.

I asked: Was it made clear that this was a label that would actually be on a generator? When we use it for flyers we can be a little more effusive, without the bounds of health literacy, but UL is pretty committed to this minimal text for the label, given that this is one of half a dozen ways a generator can kill you that they need to cover. Were there any alternatives to "partially enclosed area" offered? It's shorthand (to fit in the area of a label) for

9/5/2006

"porch, verandah, carport . . ."

I still feel they didn't properly contextualize, in terms of perhaps putting the label on a generator rather than on a piece of paper in front of people or recognizing that people owning/operating a generator are likely to know what a generator is, and that they didn't appreciate the limited real estate allotted for a warning label, but you can read it for yourself.

**BTW, sorry they keep referring to it as "CDC" warning sticker—that's just because they received it from us.**

***Scott A. Damon***  
***CDC Air Pollution & Respiratory Health Branch***

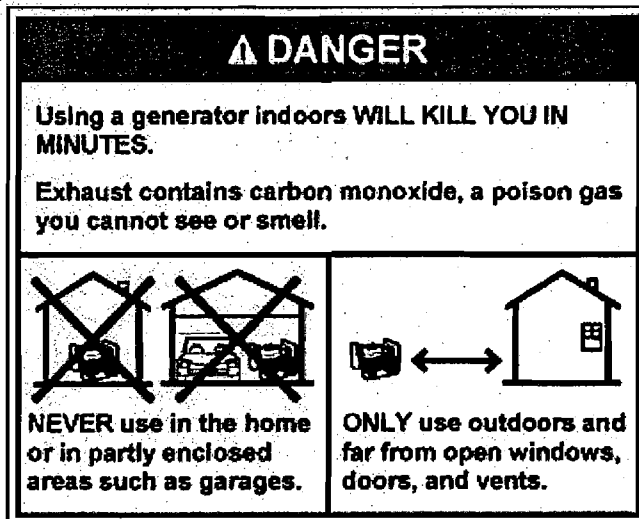
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#### overall comments summary

#### drawing

- can't tell what the generator is (in the drawing)

#### text english

4 of 9 correct - know this is about a portable generator (& understand in general what a portable generator is)

3 of 9 correct - know what a 'partly enclosed area' is

7 of 9 correct - Participant knows why the word **NEVER** is used (e.g., because the poison gas can kill you)

#### text spanish

0 of 7 correct - clearly understands /knows this is about a portable generator

0 of 7 correct - clearly knows what a 'partly enclosed area' is

3 of 7 correct - Participant knows why the word **NEVER** is used (e.g., because the poison gas can kill you)

- some participants did not know what a generator is
- some thought that gas referred to gasoline
- 'partly enclosed areas' was confusing

**recommendations from low literacy contractor, based on the results of field testing:**

1. text for CDC warning sticker
  - Recommend redesigning sticker.
  - Enlarge picture of generator so it's clearly identifiable.
  - Simplify text
    1. delete "partly enclosed areas"
    2. explain what a generator is

*Port.  
Generator  
NPR 11*

**Stevenson, Todd A.**

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**From:** Victor M. Serby [serbyv@verizon.net]  
**Sent:** Tuesday, September 12, 2006 8:40 AM  
**To:** Stevenson, Todd A.  
**Subject:** Commenting on NPR-- Proposing New Warning Label for Portable Generators

Dear Mr. Moore:

I am commenting on NPR Proposing New Warning Label for Portable Generators.

The warning: "ONLY use outdoors and far from open windows, doors, and vents." is insufficient since it does not quantify "far". "Far means different things to different people.

The CPSC should determine what minimum distance is required and reword the warning and pictoral accordingly.

Let's **assume** "far" is more than 20 feet. (It may really be more or less)

Above the double-headed arrow should have the words: "**MORE THAN 20 FEET**"

The wording of the warning should be changed to read:  
"ONLY use outdoors and **MORE THAN 20 FEET** from open windows, doors, and vents."

It is also important not to create another problem by adding additional distance between the generator and the load. Increased distance will invariably result in some consumers using extension cords of insufficient capacity to make up the distance. It is therefore incumbent upon the manufacturer to size and list, on a label affixed to the generator's electrical panel, the minimum gauge of UL Listed outdoor extension cord that can safely be used with the outlets on the generator with the warning: "ONLY USE PROPERLY SIZED EXTENSION CORDS IN GOOD CONDITION"

I hope that the Commission considers these comments.

Respectfully submitted,

Victor M. Serby, P.E.  
New York State Licensed Profesional Engineer  
255 Hewlett Neck Road  
Woodmere, NY 11598-1452  
Tel: 516-374-2455  
Fax: 267-841-0009  
e-mail: [serbyv@bellatlantic.net](mailto:serbyv@bellatlantic.net)

Post Generator  
12**Stevenson, Todd A.**

**From:** Graham Sills [graham@jinhsinho.com.tw]  
**Sent:** Tuesday, September 19, 2006 1:29 AM  
**To:** Stevenson, Todd A.  
**Cc:** Kyle Kuo; Eva Lee  
**Subject:** CO Warning Label

U.S. Consumer Product Safety Commission  
Office of Information and Public Affairs  
Washington, DC  
USA 20207

Dear T. Stevenson,

We are a manufacturer of portable generators in Taiwan and China. We have just started to prepare the warning stickers according to the CPSC's regulations. I would like to be clear on two things:

1. From my reading, a second language is only up for consideration, but currently there is no specific provision. I assume Spanish would be the natural choice for a second language. Please confirm.
2. To avoid ambiguity, the CPSC advises manufacturers to use the warning label provided in Release #06-239 August 21st (<http://www.cpsc.gov/CPSCPUB/PREREL/prhtml06/06239.html>). We plan to affix this exact label to our machines. Please advise if this is correct or otherwise.

Best Regards,

Graham Sills  
International Sales Manager  
IC Star Manufacturing Group, Ltd  
Fengyuan, Taiwan  
+886.928.416.706 (mobile)  
+886.4.2523.8107 (fax)  
[graham@jinhsinho.com.tw](mailto:graham@jinhsinho.com.tw)  
[www.icstargroup.com](http://www.icstargroup.com)

9/19/2006

**Stevenson, Todd A.**

*Port  
Comment  
13*

**From:** Brian C. Lee, PhD DABT [bcllee@goodafternoontox.us]  
**Sent:** Wednesday, October 04, 2006 6:40 PM  
**To:** Stevenson, Todd A.  
**Subject:** comment: NPR portable generators

Dear Consumer Product Safety Commission:

The 2004 staff report containing cases of CO poisoning from portable electricity generators demonstrates that "adequate ventilation" cannot be achieved merely with an open door or window. I support the proposed rule for stronger warning labeling of these products as a minimum measure to reduce CO poisonings.

I encourage active CPSC participation in the development of a CO emission performance standard which would serve to drive technological solutions to this problem. The staff report has mentioned solutions such as catalytic converters and CO sensing lockouts, which I see as feasible with a history of success on other combustion engine devices.

Please also determine whether fuel cell portable generators are included by the rule.

Sincerely,

Brian C. Lee, PhD DABT bcllee@goodafternoontox.us

Good Afternoon Toxicology Consulting, LLC  
991 NE Kirsten Place  
Corvallis OR 97330-6822



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control  
and Prevention (CDC)  
Atlanta GA 30341-3724  
October 6, 2006

U.S. Consumer Products Safety Commission (CPSC)  
Office of the Secretary  
c/o Todd Stevenson at [tstevenson@cpsc.gov](mailto:tstevenson@cpsc.gov)

Dear Mr. Stevenson:

Julie Vallese, Director, CPSC Office of Public Affairs, requested that staff from CDC's National Center for Environmental Health/Air Pollution and Respiratory Health Branch (APRHB) review and comment on a CPSC notice of proposed rulemaking for portable generators.

The proposed standard would require manufacturers to place a new warning label on portable generators. The label includes pictograms and statements warning consumers that a generator's exhaust contains poisonous carbon monoxide and that a generator should never be used inside the home or in partially enclosed areas such as garages ([www.cpsc.gov/cpsc/pub/prerel/prhtml06/06239.html](http://www.cpsc.gov/cpsc/pub/prerel/prhtml06/06239.html) and [www.cpsc.gov/LIBRARY/FOIA/ballot/ballot06/portgen.pdf](http://www.cpsc.gov/LIBRARY/FOIA/ballot/ballot06/portgen.pdf)).

APRHB staff members have reviewed the rule and concur with CPSC's recommendation that the new label proposed as an Outline of Investigation under Underwriters Laboratories (UL) 2201 be required as the basis for unit and packaging labeling on portable generators. APRHB staff has served as representatives on the UL Standards Technical Panel that developed this label since 2003 and has contributed significantly to the development of the illustrations and language in the current UL proposed markings. APRHB also concurs with the suggestion that this label be developed in languages in addition to English.

It's been a privilege for CDC staff to work with CPSC and UL to protect public health from unnecessary illness and deaths due to portable generator-associated carbon monoxide poisoning.

Sincerely,

Howard Frumkin, M.D., Dr.M.P.H.  
Director, National Center for Environmental Health/  
Agency for Toxic Substances and Disease Registry

N<sup>o</sup>

14



15

YAMAHA MOTOR CO.,LTD. 2500 Shingai, Iwata, Shizuoka 438-8501, Japan

Date: Nov. 2, 2006

Attn: Consumer Product Safety Commission

Subject: "PORTABLE GENERATOR NPR"  
(Comment for Proposed Rules about 16 CFR Part 1407 "Portable Generator")

Dear Mr. Todd A. Stevenson  
Secretary, Consumer Product Safety Commission

This is YAMAHA MOTOR Co. , Ltd.  
I got the message about captioned matter.  
Our company requests following items.

Comments for Hazard Label

1. We propose the signal word shall be used 『WARNING』, not 『DANGER』.  
Reason: We supposed, if risk of carbon monoxide (CO) is prohibited 『DANGER』, it will become down the level of importance of 3 risks (Fire, Electric shock, Connection to commercial power source).
2. We propose the pictogram shall be Used 『(∞)』(Please refer attached sheet), not 『X』.  
Reason: We supposed, 『(∞)』 is recognized marking in the world and used generally, and it is easy to understand effectively to all people.
3. We propose the hazard label for package shall be no use.  
Reason: Package is destined to throw out, and when we operate generator without package.
4. We propose the exhibitive language shall be concentrated English.  
Reason: If another language is required, increase in number boundless expense.
5. We need six-month to design to comply with the new requirements from issuance of final regulation in the Federal Register.

Please consider our status of development.  
Yours truly.

*Takashi Uchino*

Supervisor TAKASHI UCHINO  
Development Group  
Power Products Division  
RV Company





November 7, 2006

Office of the Secretary  
U.S. Consumer Product Safety Commission  
4330 East West Highway  
Bethesda, Maryland 20814

CPSC/OFC OF THE SECRETARY  
FREEDOM OF INFORMATION  
2006 NOV - 8 A 10:23

**Portable Generator NPR**

Dear Mr. Secretary:

American Honda Motor Company ("Honda") offers the following comments on the August 24, 2006 Notice of Proposed Rulemaking (NPR) proposing labeling requirements for portable generators. The NPR prescribes specific CPSC staff-devised warning labels to address the risk of carbon monoxide (CO) poisoning associated with the use of portable generators. Honda generators already bear what it believes are effective warnings relating to CO poisoning as well as to other risks associated with generator usage. These labels also comply with ANSI Z535. Thus, even in the absence of mandatory labeling requirements, Honda believes that its labels already substantially accomplish the objective of the NPR to alert consumers to the hazards of CO poisoning associated with generator usage. Turning to the NPR, while Honda shares the Commission staff's concerns about CO poisoning and appreciates the sentiment behind its well-intentioned effort to promulgate labeling requirements, the label proposed in the NPR raises substantive and procedural issues that Honda believes the Commission should have addressed prior to publishing the NPR.

**1. Choice of Statutes:**

The NPR proposes to require precautionary labeling for generators under section 27(e) of the Consumer Product Safety Act (CPSA or Act). Section 30(d) of the Act, however, requires that a risk of injury associated with a consumer product that could be eliminated or reduced to a significant extent by action under the Federal Hazardous Substances Act (FHSA) may be regulated under the CPSA only if the Commission by rule finds it is in the public interest to do so.

More than three decades ago, the Food and Drug Administration recognized that the FHSA provides an appropriate statutory vehicle for regulating carbon monoxide emissions when it promulgated labeling requirements for

charcoal briquettes. See 21 C.F.R. 191.5(a)(1) and (b)(6). The Commission reaffirmed that recognition in 1996, when it revised the required charcoal label. 16 C.F.R. 1500.14(b)(6). In terms of risk of injury, no difference exists between carbon monoxide generated by burning charcoal and that generated when a portable generator burns gasoline or diesel fuel. The injury scenarios for both products are largely the same - the generation of CO in enclosed and/or unventilated areas. Clearly then, the FHSA is the appropriate statute with which to address through labeling the risk of injury associated with CO generation from portable generators, especially since a primary purpose of that statute is to require precautionary labeling for hazardous substances.

When it published the NPR, the Commission failed to publish a proposed rule indicating its determination that regulating the risk of injury associated with portable generators under the CPSA rather than the FHSA would be in the public interest. In fact, the NPR does not even refer to either the FHSA or to section 30(d) of the CPSA. This procedural flaw alone leaves the Commission vulnerable to challenge, notwithstanding other substantive concerns discussed below. Nor is the procedural distinction an idle one.

The ostensible goal of the Commission in publishing the NPR is to establish uniform labeling requirements for generators. Taking action under section 3(b) of the FHSA to promulgate such requirements would further this objective by granting pre-emptive effect under section 18(b) of the FHSA to the resulting labeling. Regulating the labeling of generators under section 27(e), on the other hand, would not have a similar effect, since the pre-emption provisions of section 26 of the CPSA only apply to consumer product safety standards. By definition in the CPSA, section 27(e) rules are not consumer product safety standards.

## **2. The Failure to Promulgate the Portable Generator Rule as a Consumer Product Safety Standard:**

Section 7 of the CPSA provides the Commission with authority to promulgate consumer product safety standards that, *inter alia*, consist of requirements that a consumer product be marked with or accompanied by clear and adequate warnings or instructions or requirements respecting the form of warnings or instructions. Such requirements must be reasonably necessary to prevent or reduce an unreasonable risk of injury associated with the product to be regulated. On its face, the label that the NPR proposed appears to be exactly the type of warning that section 7 contemplates, to the point that the NPR specifically characterizes the risk of CO poisoning associated with generator

emission as an unreasonable risk of injury -- precisely the type of risk that section 7 addresses. Moreover, although section 27(e) requires a manufacturer to provide safety information both to the Commission and to purchasers, the NPR fails to specify what information generator manufacturers must provide to the Commission, again suggesting that the section 27(e) rule proposed in the NPR is in reality a section 7 standard without the requisite statutory findings.

The NPR contains no discussion of why the Commission chose not to engage in a section 7 rulemaking proceeding. If the concern is a possible inability to make the findings that section 7 requires, then as a matter of good public policy, the Commission should not try to circumvent that deficiency by proceeding under section 27(e). If, on the other hand, the Commission is confident in the staff analyses that support the NPR, initiating a section 7 proceeding should not engender an unnecessary burden on the agency, nor should it cause undue delay, especially in view of the fact noted in the NPR that the Commission has been focused on the problem of CO emission from portable generators since before 2000.

### **3. The Need for the Rule:**

As is noted earlier, Honda generators all bear warnings relating to CO poisoning. To Honda's knowledge, those manufactured by its competitors also bear comparable warnings. Apparently, the staff has conducted only a cursory review of existing labels and has subjectively concluded that existing labels and instructions do not adequately communicate the risk of injury because they are subject to interpretation. The staff made no apparent effort to conduct surveys with consumers to evaluate perception of the existing labels. Hence, conclusions about the adequacy of those labels lack foundation.

While staff-generated memoranda from 2002, 2003, 2004 and 2006 cite a limited number of examples of incidents in which consumers attempted to provide ventilation while operating generators (presumably to support the proposition that existing labeling is inadequate), the in-depth investigation reports cited apparently contain little information about the labeling on the products involved or consumer awareness of the labeling. Moreover, the NPR suggests that portable generator sales could exceed 1 million annually. Given the longevity of these products, this suggests that several million generators are available for use during each year. Without denigrating the severity of the risk associated with CO generation or the tragic occurrence of death each year, the sheer number of generators in use when compared to the number of incidents each year suggests that almost all individuals who use

portable generators are aware of the hazard and use the products properly and safely. This in turn suggests that existing labeling is adequate. Finally, the Commission's experience with the 1996 revisions to labeling for charcoal briquettes discussed below strongly suggests that changing the current labels on portable generators will have little impact on reducing the incidence of CO poisoning.

**4. The Failure of the NPR to Recognize Additional Hazards Associated with the Operation of Portable Generators:**

As is noted above, Honda generators already bear precautionary labeling, including a pictogram, warning users of the risk of CO generation associated with generator use. They also bear additional warnings related to a number of other hazards that present a risk of death or serious injury if generator users do not take appropriate steps to protect themselves. These include electrocution resulting from use in wet conditions -- conditions that, as the Commission staff recognizes, often necessitate use of a generator in the first place -- electrocution from improperly connecting a running generator directly to the power supply of a building, and fire associated with fueling a running generator. Honda has considerable concern that highlighting the carbon monoxide risk at the expense of the other warnings may lead consumers into believing that those risks are less significant than that of CO generation, thus causing them to pay less attention to those other warnings. Neither the NPR nor the Commission's Human Factors staff May 26, 2006 memorandum contains any discussion of these competing concerns.

An earlier August 22, 2003 Human Factors memorandum proposing a warning label addressing the CO hazard associated with portable generators recognized an inherent contradiction in warning people to use generators outdoors, away from semi-enclosed areas and air intakes while, at the same time, instructing them to keep generators dry and out of damp conditions. Rather than attempting to resolve this conflict, the Human Factors staff side-stepped it by developing the proposed label "under the assumption that the conflict can and will be resolved by eliminating the electrocution warning . . . by designing generators to permit their use outdoors in poor weather conditions. . . ." The latter, of course, has not occurred, thus leaving the conflict and the issue of the impact of CO warnings on other hazard warnings unresolved. The label that the NPR proposes continues to avoid the issue.

**5. The Potential Effectiveness of the Labels that the NPR Prescribes Has Not Been Validated:**

The Commission staff chose to develop the label proposed in the NPR on its own initiative without soliciting input from the generator industry. Moreover, judging from the February 13, 2006 comment that the Commission staff submitted to Underwriters' Laboratories (UL) on the draft UL Outline of Investigation, 2201, Portable Engine Generator Assemblies, UL also had little involvement in drafting that label. Honda believes that the exclusion of the industry from the process was an unfortunate choice, given that, as the Commission has acknowledged in many, many voluntary standards proceedings, industry representatives have the experience and perspective to make substantive comments that refine and improve the final work product.

The NPR does not refer to any independent effort on the part of the Commission to evaluate the understandability and potential effectiveness of the new recommended labels, nor does it or any of the staff memoranda supporting the NPR discuss the failure of the Commission to do so. An April 14 letter from the Director of the Office of Compliance attempting to obtain industry agreement to adopt the labels voluntarily without the need for rulemaking posits that the recommended labels "reflect the staff's general expertise in the area of warnings and lessons we learned in testing in connection with the CPSC-required charcoal label," implicitly acknowledging that the Commission has not taken steps to evaluate the proposed label objectively with human subjects. If anything, the record in the charcoal matter suggests that the Commission should conduct testing on the new proposed generator label to assure that the message meets the minimum criteria in ANSI Z 535.3, *i.e.*, at least 85% correct responses with less than 5% critical confusion.

As the Commission may recall, the pictogram in the charcoal label was revised after initial focus group tests on the pictogram and label developed by the Commission staff showed only a 56% correct response with 4% critical confusion, thus confirming the value of conducting such analysis. The Commission's experience with the charcoal label strongly indicates that some type of focus group testing on the label proposed in the NPR is appropriate, if only to confirm the validity of the staff's assumption that the new recommended labels achieve the minimum levels of comprehension that ANSI Z535.3 contemplates. Furthermore, while the risk associated with CO generation from charcoal and generator usage is nominally the same, significant differences exist between the two products in the type and circumstances of use, collateral hazards and user population. These differences alone suggest the Commission

should not rely on its experience with the charcoal label to conclude the generator label proposed in the NPR will have the desired effect with respect to exposure to CO, leaving aside the issue of whether those labels might have the unintended effect of exacerbating unnecessarily the risk of fire and electrocution associated with generator usage.

Absent objective confirmation of the effectiveness of the labels proposed in the NPR, the Commission is in essence requiring the generator industry and the public to accept as a matter of faith that the new recommended labels adequately communicate the risk of injury associated with CO generation without having a negative effect on the other warnings that appear on generators. Honda believes that the failure to conduct any consumer evaluation of the label proposed in the NPR, along with existing labels on generators and any alternatives, for example the label proposed in the staff's 2003 memorandum and UL's original proposed label, does the public a disservice. Simply put, absent testing, the Commission has no way of knowing which of these labels might have the greatest potential to effectively address CO poisoning.

**6. The Proposed Label Is Inconsistent with Prior CPSC Staff Recommendations and Fails to Take into Account Alternative Language:**

In 2003, after its experience garnered from the development of the charcoal label, the Commission staff designed warnings for portable generators that differ substantially from the label it now proposes the Commission adopt in the NPR. The significant differences and accompanying commentary appear below.

a. The 2003 warnings were to appear on the generator itself, on the generator package, and in the instruction manual. The NPR warning only applies to the generator itself and its package. Neither the NPR nor the 2006 staff memorandum in support of the NPR provides any rationale for this difference.<sup>1</sup>

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<sup>1</sup> Note also that the 2003 staff-developed warnings included a reference in the instruction manual alerting consumers to be aware of the symptomatology associated with CO poisoning and the measures for consumers to take if they experienced such symptoms. The 2003 memo notes that the warning included this information because knowledge and awareness of symptoms could prevent the death of people who have taken unsuccessful measures to avoid CO poisoning. The NPR label contains no similar reference, and does not address the substantive issue of what contribution this type of warning might provide to the reduction of injury.

b. The 2003 warning and the poster warning of CO hazards associated with generator operation that the Commission distributed in 2005 both used the signal word "Warning" rather than the word "Danger" in the NPR label as a signal word. The 2003 memo explained in detail the reason for using "Warning." Honda believes that that rationale continues to be valid, especially since it is consistent with long-standing Commission practice in labeling for CO hazards. The NPR itself contains no explanation for the change to "Danger" in the proposed label. However, the use of that signal word departs from the hierarchy of hazards that ANSI Z 535 establishes, and conflicts with the Commission's own codified warning for charcoal and, as is noted above, with the warning in the poster on generator hazards that the Commission provided to the industry in September 2005, 11 months before publication of the NPR.

The 2006 staff memo supporting the NPR explains that the decision to use the signal word "Danger" was in essence the result of a change in the perspective of the staff from that which it had in 2003 because the "hazardous situation" associated with generator usage requires the use of "Danger." The memo does not, however, explain why the staff did not consider this distinction in 2003. Moreover, the rationale that using a generator will almost certainly result in death or serious injury if precautions are not followed is equally applicable to the use of charcoal indoors. Nevertheless, the staff continues to accept "Warning" as adequate to address the risk of CO poisoning from charcoal. The inconsistency is self-evident.

Even if one could accept that the signal word "Danger" in principle might be appropriate for a stand-alone label addressing CO emission, Honda notes again that elevating carbon monoxide poisoning to that status may have the unanticipated and undesirable effect of weakening other warnings that address equally dangerous risks, especially in view of the imminent hazard presented by the other three risks mentioned above.

c. The 2003 warnings that the staff developed contained an optional pictogram depicting the inhalation of gas which the staff memo noted had undergone successful consumer testing as part of Westinghouse Electric Corporation's 1985 Product Safety Label Handbook.<sup>2</sup> The NPR label contains

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<sup>2</sup> Unlike the staff's current recommendation in support of the NPR label, the 2003 memo noted that consumer testing of labels using the inhalation pictogram would be valuable to determine whether the depiction of gas or vapor might lead consumers to believe that CO is visible.

pictograms showing improper and proper generator usage. These pictograms apparently have never been tested. Contrary to accepted practice, the NPR label also uses "X" to identify prohibited actions rather than the symbol "⊗."

The May 26 memorandum in support of the NPR explains the staff preference for use of the "X" symbol by referring to the charcoal label, but that label was, of course, subjected to focus panel evaluation -- again a process which one can infer from the staff memo has not taken place with respect to generators. On the other hand, the Commission's September 2005 poster on generator hazards -- which post-dated the promulgation of the charcoal label by more than 9 years and presumably was developed with input from the same staff members who wrote the 2003 and 2006 memoranda -- used the "⊗" symbol, thus raising the question why the staff less than a year later has concluded that its prior position on the appropriate symbol to use was incorrect or would be ineffective in addressing CO poisoning.

To the extent that the Commission is relying on its activities to promulgate a warning label for charcoal to validate the pictogram in the label proposed in the NPR, that reliance would appear to be misplaced. The results of Commission testing on the label for charcoal that it ultimately adopted showed that the label would be effective in part because the pictogram on the label (after it was redesigned) experienced a high degree of consumer comprehension. That pictogram, however, provides a clear and readily understandable depiction of a charcoal grill -- a product with a unique silhouette. It is by no means clear that the depiction of the generator in the new recommended labels is sufficiently clear to provide comprehension comparable to that which the charcoal pictogram affords. Indeed, the addition of the "X" to the pictures of a house and a garage in the recommended label tends to obscure the depiction of the generator in those locations, suggesting that using "⊗," the internationally recognized symbol, might be more effective in allowing people to understand those pictograms.

Honda also notes that one of the reasons that the Commission chose to use an "X" in the charcoal label was because the "⊗" symbol did not go through all of the pictograms of prohibited uses of charcoal, thus suggesting to some members of the focus panel that uses through which the slash did not run were not hazardous. The same would not be true for the label proposed in the NPR. Finally, in the preamble to the final rule for charcoal labeling, the Commission staff recognized that use of the "X" was a significant departure from accepted labeling practice and expressly noted its intention to present this alternative to ANSI for consideration of supporting alternate symbol designs for



ethnic or other special populations. Apparently, that either did not occur or ANSI did not accept the alternative. Nevertheless, the 2006 staff memo in support of the NPR states that the staff *now* prefers the use of "X" symbols to convey prohibition except when a circle/slash symbol would render the prohibited act more understandable, for example, because it does not cover or obscure critical details of the underlying pictogram as much as an "X" symbol. Leaving aside the issue that the "X" in the NPR pictograms tends to obscure the pictures of the generator, the unilateral departure of the staff from internationally recognized labeling practice may not be in the Commission's or in the public's interest.

Of equal concern to the foregoing, there is nothing comparable in the charcoal label that would support the conclusion that either of the pictograms in the bottom left half of the label proposed in the NPR will have the desired effect. Even if most consumers are able to determine that the pictograms show a generator, the pictogram of the generator in a garage or building could lead to confusion, especially for consumers who have little reading ability. For example, initial Honda review concluded that the pictogram showing the generator in a garage could reasonably be construed as a warning that generators cannot be stored in a garage. Even assuming that consumers understand that the pictogram in the bottom right half of the label proposed in the NPR is designed to warn people to use generators away from homes, that pictogram introduces the same type of subjectivity -- *e.g.*, how far away should the generator be from the house -- which the staff found objectionable in existing labels on generators.

d. The text and format of the 2003 warnings differ significantly from that of the NPR label. For example, the 2003 warnings instruct consumers not to use generators in homes, garages, or sheds "even if you run a fan or open doors or windows," explicitly rejecting the use of the phrase "other semi-enclosed spaces" because it was more open to interpretation than identifying specific locations. The NPR label, on the other hand, tells consumers not to use generators "in the home or in partly enclosed areas such as garages." Similarly, the 2003 warning states "Poisonous Gas" in the heading immediately below the signal word "Warning," while the NPR recommended label uses the term "poison gas" in the text of the warnings.

Neither the NPR nor the 2006 staff memo in support of the NPR explains in any detail the need to change the former 2003 staff recommendations. While the 2006 memo attempts to explain the differences by characterizing the 2003 warnings as being intentionally written so they could be

used with engine-driven tools other than generators, the title of the 2003 memo "Proposed Warning Language to Accompany Generators" speaks for itself.

With respect to the text of the NPR proposed generator warning, in the absence of testing, reasonable people can differ as to what warnings can or will be most effective. The differences between the Commission staff's 2003 recommended warnings and the NPR proposed label clearly demonstrate this proposition. As further examples, the statement in the heading of the NPR proposed label -- presumably the lead statement designed to attract the reader's attention -- "Using a generator indoors will kill you in minutes" does not address the issue of use outdoors near homes, a hazardous condition in its own right. Moreover, this statement could be misconstrued to mean that if someone is not injured "within minutes" the user is safe, especially in those instances in which people use a generator, for example, in a doorway under the mistaken belief that such use is not inside the building. Perhaps a better statement might be that CO "could kill you in minutes or hours." Similarly, the NPR label states "exhaust contains carbon monoxide. . . ." The charcoal label and 2003 generator labels, on the other hand, use the simpler construction "It gives off carbon monoxide . . ." which might be more comprehensible to some people who may not understand the reference to exhaust. "Never use in the home or in partly enclosed areas such as garages" might be better communicated by saying "Never use inside a home, garage, shed, carport, or in a partly enclosed area." -- a hybrid of the 2003 and 2004 warnings that focuses on areas in which incidents of CO poisoning have actually occurred. The warning relating to outdoor use in the proposed label instructs people to use generators outdoors "far from open windows, doors, and vents." However, this statement introduces the type of subjectivity into the warning which the staff found objectionable in reviewing existing labels, and also suggests that generators can be used safely when doors and windows are open -- a proposition that may be incorrect if users do not appreciate how far the generator must be from those openings. This warning might be more effectively stated "Only use outdoors far away from the home or other buildings. Close all windows and doors and block all vents."

These comments on the contents of the NPR label are offered, not to suggest that the comments and variations noted above will necessarily produce a "better" label, but to point out that opening up the process for public participation and comment has the potential in the long run to yield a more effective warning for consumers. The fact that the same members of the Commission staff who authored the 2003 warnings have now in 2006 proposed a substantially different label based on virtually the same data upon which they relied to produce the 2003 recommended warnings demonstrates the subjectivity

of the current process and the danger of relying on untested staff opinion to develop such warnings. The better practice would be to develop a number of labels and test them with human subjects to assure that the label ultimately chosen can produce the desired result.<sup>3</sup>

**7. The Potential Effectiveness of a Revised Label:**

Even if the Commission continues to go forward with the labeling initiative, history suggests that addition of the labels proposed in the NPR will, at best, have marginal impact in reducing CO incidents and deaths. A review of NEISS system information on the Commission's web site shows that the requirement for the revised charcoal label that went into effect in late 1997 appears not to have demonstrably reduced the incidents of CO poisoning or anoxia associated with charcoal use. There is little reason to believe that revising the existing generator labels would have any different impact.

**8. Location of the Label Proposed in the NPR:**

If the Commission goes forward with the label proposed in the NPR, the requirement that the on-product hazard label be located on a part of the portable generator that, if removed, would impair the operation of the generator assembly, is not technically feasible. This is because of the limited amount of space available on the generator, especially if the label must also be conspicuous to an operator while filling the fuel tank, accessing the receptacle panel, and starting the engine. We would recommend that the requirement read that the label "be placed on a part of the portable generator that cannot be removed without the use of tools".

**9. Effective Date:**

If the Commission goes forward with the label proposed in the NPR, the requirement that the label be placed on all products imported or introduced into commerce 90 days after the effective date of the rule provides insufficient time for imported products to comply. It takes approximately three months to produce change drawings and introduce a design change to mass production. It would take about one and a half months to make products to order, and another month to ship the products to the United States. Therefore the necessary lead time for products imported into the United States to comply

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<sup>3</sup> Such an effort could also include an element designed to test the effectiveness of the label placement specified in the label proposed in the NPR.

Secretary  
Consumer Product Safety Commission  
November 7, 2006  
Page 12

with the new labeling requirements will be about a minimum of 6 months after the issuance of the final rule.

**10. The Commission Should Withdraw the NPR:**

Should the Commission continue to believe it necessary to go forward with this labeling initiative -- a course of action that Honda believes is unnecessary given the fact that virtually all generators already have adequate labeling -- Honda believes that the better approach would be for the Commission to withdraw the NPR or place the rulemaking proceeding in abeyance while it works with industry and interested parties to address the labeling issue. Doing so would have the benefit of transparency and public participation, while affording the staff the opportunity to do the research and groundwork necessary to determine whether a revised label is necessary and, if so, to develop an effective and objectively supported label.

Please contact me if you have any questions or want to discuss the contents of this letter.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Michael A. Brown", written over a horizontal line.

Michael A. Brown

**WILLKIE FARR & GALLAGHER LLP**

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November 7, 2006

**BY ELECTRONIC DELIVERY**

Office of the Secretary  
Consumer Product Safety Commission  
4330 East West Highway  
Bethesda, MD 20814

Re: PORTABLE GENERATOR NPR

Dear Mr. Secretary:

These comments are submitted on behalf of Yamaha Motor Corporation, U.S.A. ("Yamaha"), in response to the Consumer Product Safety Commission's ("CPSC") August 24, 2006 Notice of Proposed Rulemaking ("NPR"). See Portable Generators; Notice of Proposed Rulemaking; Proposed Labeling Requirements; Request for Comments and Information, 71 Fed. Reg. 50,003 (Aug. 24, 2006). The NPR proposes a mandatory safety label concerning the risks of carbon monoxide ("CO") poisoning associated with improper use of portable generators.

Yamaha distributes portable generators for sale to consumers and industrial users in the United States. Yamaha advises consumers about the risks of CO poisoning through on-product labels and warnings and instructions in the owner's manuals that accompany Yamaha-brand generators. These warnings and instructions have proven effective. Since 1994, Yamaha has distributed approximately 150,000 portable generators for sale in this country. During this same time period, Yamaha is not aware of any reported incident of CO poisoning involving its generators.

Yamaha shares CPSC's goal of ensuring that users of all brands of portable generators are adequately informed of the risks of improper usage. While uniform mandatory labeling requirements might further that goal, it is important that the proposed CO label be adequately tested for consumer comprehension and effectiveness. Such testing should be conducted in conjunction with other product warnings and instructions. Any such mandatory requirements should also be based on proper statutory authority and promulgated pursuant to the proper procedures.

**Lack Of Demonstrable Need For A Mandatory Label**

The NPR is based on an assumption that the proposed mandatory CO label would be more effective than existing on-product labels. Yet, it does not appear that CPSC performed any evaluation of consumer perception of existing labels or the effectiveness of such labels. Prior memoranda by CPSC staff only discuss a limited number of incidents where CO poisoning resulted from misuse of portable generators. No apparent attempt was made to relate these incidents of misuse to the labeling of the generator involved or consumer awareness of such labeling.

As noted, Yamaha has distributed approximately 150,000 portable generators for sale in the U.S. since 1994. Yamaha is not aware of any reported incident of CO poisoning involving these generators. This indicates that Yamaha's current on-product labels, coupled with the warnings and instructions in its owner's manuals, have been effective in promoting safe and proper use of these products by consumers.

Moreover, CPSC data show that the incidence of CO poisoning associated with the misuse of other brand portable generators is extremely low. CPSC estimates that about 9.2 to 10.6 million portable generators are in use in U.S. households, with recent annual sales of new units averaging around 1.2 to 1.6 million.<sup>1</sup> An estimated 51 incidents of fatal CO poisoning associated with portable generator misuse have occurred annually over the past four years.<sup>2</sup> While any CO poisoning is tragic, such incidents are relatively rare and involve only a tiny fraction of products in use. These data indicate that the vast majority of consumers are aware of the danger of CO poisoning and use generators safely and properly.

Other relevant data further suggest that the proposed CO label may have only a marginal effect on consumer misuse of portable generators. In particular, CPSC mandated use of a new label for charcoal effective November 1997. Burning charcoal emits CO and involves similar risks of CO poisoning. The charcoal label initially developed by CPSC staff was modified in response to studies indicating problems with consumer comprehension of the proposed label. However, even after consumer-testing, the new mandatory label has not demonstrably reduced the incidence of CO poisoning associated with charcoal use.<sup>3</sup>

#### **Need For Proper Testing And Validation Of The Proposed Mandatory Label**

The proposed CO label also lacks adequate testing and validation. This presents several potentially significant problems.

The NPR's focus on CO poisoning creates a risk of minimizing competing safety concerns. There are other potential safety hazards presented by the use of portable generators. These include, among other things, risks of (1) electrocution from use in wet conditions or with an improper connection; (2) fire when fueling a generator; and (3) burning or combustion from engine and muffler heat. Although CO poisoning incidents exceed the number of electrocution or combustion incidents associated with

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<sup>1</sup> CPSC MEMORANDUM: *Portable Electric Generator Sets for Consumer Use: Additional Data on Annual Sales, Number in Use, Societal Costs*, August 24, 2006, available at <http://www.cpsc.gov/library/data.html>.

<sup>2</sup> The CPSC reports that fatalities attributed to CO poisoning from the use of a portable generator ranged from 44 to 64 deaths annually between 2002-2005. See CPSC MEMORANDUM: *Non-fire Carbon Monoxide Fatalities Associated with Engine-Driven Generators and Other Engine-Driven Tools in 2002 through 2005*, August 16, 2006, available at <http://www.cpsc.gov/library/data.html>.

<sup>3</sup> See <http://www.cpsc.gov/library/neiss.html> (reporting charcoal-related CO incidents pre- and post-1997).

improper generator use, all such incidents are relatively rare and present the risk of serious injury or death.<sup>4</sup>

Highlighting the risk of CO poisoning in a separate, mandatory label may create a misperception on the part of consumers that other risks associated with portable generator use are less significant. Specifically, the NPR's use of the term "Danger," instead of the term "Warning," in the heading, and comparatively large font and bold color requirements, would differentiate the CO warning as being more significant than the warnings addressing other safety hazards. Moreover, these other warnings could only be addressed in a separate label -- requiring additional on-product space and presenting potential "cluttering" issues.

It appears that CPSC staff developed the proposed CO label without the benefit of prior comment or review by portable engine manufacturers or distributors. Yamaha's current safety label includes warnings related to all of the relevant hazards associated with use of its portable generators and refers users to the owner's manual, which contains additional comprehensive warnings and instructions addressing these hazards. This approach may be superior to highlighting one hazard at the expense of others. CPSC should conduct proper consumer testing and evaluation of its proposed CO label, in conjunction with warnings and instructions relating to other potential hazards, to ensure that the new approach that would be mandated in the NPR does not mislead or confuse consumers with respect to other risks associated with portable generator use.

There is likewise no indication that CPSC conducted consumer focus group or other consumer evaluation of the proposed CO label for comprehension or effectiveness. Instead, CPSC apparently relied on consumer testing related to its mandated label for charcoal to support the use of certain pictograms and other aspects of the proposed CO label for portable generators. Consumer testing resulted in revisions to the charcoal label to ensure that minimum levels of comprehension were achieved. CPSC should conduct similar consumer focus groups to insure that the proposed CO label for portable generators achieves minimum levels of comprehension.<sup>5</sup>

Consumer testing and validation is particularly important because the proposed CO label in the NPR is inconsistent with prior CPSC staff recommendations.<sup>6</sup> The NPR label departs in several respects from the recommendations and warning label proposed by CPSC in 2003, generally without explanation. For example, the CO label proposed in the NPR fails to alert consumers to the symptomatology of CO poisoning or to refer users to the product manual for additional instructions. CPSC further elected to

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<sup>4</sup> CPSC MEMORANDUM: *Generator-related Deaths, Injuries, and Complaints of Potential Injury Due to Shock, Electrocution, Fires, and Burns reported to CPSC Since 1990*, December 14, 2005, available at <http://www.cpsc.gov/library/data.html>.

<sup>5</sup> The American National Standards Institute recommends that minimum consumer comprehension of a safety label consists of 85% correct responses to a label and less than 5% responses of critical confusion. See ANSI Z535.3.

<sup>6</sup> CPSC MEMORANDUM: *Proposed Warning Language to Accompany Generators*, August 22, 2003, available at <http://www.cpsc.gov/library/data.html>.

identify the label with the signal term "Danger," instead of the signal term "Warning" used in the heading of its 2003 proposed label. Memoranda accompanying the NPR suggest that this change reflects a new assessment by CPSC staff that the degree of hazard posed by the use of portable generators warrants use of the term "Danger."<sup>7</sup> This staff assessment is not supported by any material change in the level of CO poisoning risk since 2003. It is also inconsistent with long-standing general CPSC practices in labeling CO hazards, the hierarchy of hazards established by ANSI Z535, and the CPSC's label regarding the CO hazard posed by charcoal.

In addition, the CO label proposed in the NPR includes potentially confusing pictograms. The proposed label invokes an "X" symbol, instead of "⊘," to indicate actions consumers should not take in operating a generator. "⊘" is the standard international symbol for "no" and is thus more likely to be understood by a wide range of consumers. See ISO 3864-1. The "X" on the proposed label also tends to obscure the depiction of the underlying images it attempts to convey. In contrast, the pictograms presented in Yamaha's owner's manual utilize a transparent "⊘," which is consistent with international standards, does not obscure the underlying images, and has proven effective. CPSC staff attempts to support its choice of an opaque "X" by making invalid comparisons with the pictograms used in its charcoal label. Pictures of the charcoal grill in that respective label are distinctive, whereas the renderings of a generator in the proposed CO label may be less clear to consumers. Further, unlike the charcoal pictograms, the renderings in the proposed NPR label have apparently never been tested with consumers.

The pictograms in the proposed NPR label also seem open to subjective interpretation. The generator itself may be difficult to distinguish. The depiction of a generator in a garage with "X" may lead to a misperception by consumers that generators cannot be stored in garages. In addition, the pictogram indicating separation of a generator from a house does not indicate what a safe distance would be or account for potential air intake sources into the house.

Some of the text of the proposed CO label is likewise potentially confusing and misleading. For example, the statement "[u]sing a generator indoors WILL KILL YOU IN MINUTES" is not accurate in all circumstances. Fatal CO poisoning can also occur over several hours of exposure, depending on the relative locations of the generator and the exposed victim, the degree of ventilation, and other factors. According to CPSC modeling studies, excessive CO exposure in a home can be lethal between 40 to 60 minutes if in a basement, and between 201 and 326 minutes if in upper level bedrooms.<sup>8</sup> Based on the language in the proposed NPR label, consumers who have not experienced any symptoms of CO poisoning within "minutes" of exposure may mistakenly believe themselves to be free of danger from improper use of a portable generator in circumstances where longer periods of exposure can also prove fatal.

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<sup>7</sup> CPSC MEMORANDUM: *Product Labels for generators to address carbon monoxide poisonings*, May 26, 2006, available at <http://www.cpsc.gov/library/data.html>.

<sup>8</sup> CPSC MEMORANDUM: *Health hazard assessment of CO poisoning associated with emissions from a portable, 5.5 kilowatt, gasoline-powered generator*, September 21, 2004, available at <http://www.cpsc.gov/library/data.html>.



### **Procedural Issues Relating To Promulgation Of The NPR**

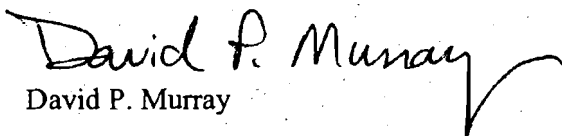
The NPR proposes to require labeling of generators pursuant to § 27(e) of the Consumer Product Safety Act ("CPSA"). However, under § 30(d) of the CPSA, risks that could be regulated pursuant to the Federal Hazardous Substances Act ("FHSA") may only be regulated under the CPSA if the CPSC finds that it is in the public interest to do so. CPSC failed to publish any notice of proposed rulemaking indicating a determination that regulating CO poisoning risk under the CPSA, rather than the FHSA, would be in the public interest. The FHSA provides the proper statutory authority for the proposed CO labeling requirements. The primary purpose of the FHSA is to require precautionary labeling of hazardous substances. CO label requirements for charcoal were appropriately promulgated under the FHSA. In addition, promulgation of mandatory labeling requirements for portable generators under the FHSA would promote the goal of uniform labeling by preemption of alternative labeling forms. *See* FHSA §§ 3(b), 18(b).

If the proposed CO label is to be promulgated under the CPSA, it should be done pursuant to § 7. The NPR's stated enabling statute, § 27(e), establishes a lesser standard of statutory findings. In contrast, mandatory rules promulgated under § 7 must be reasonably necessary to prevent or reduce unreasonable risk of injury associated with the product at issue. Although the NPR asserts that the proposed mandatory CO labeling requirements are reasonably necessary to prevent or reduce the unreasonable risk of injury associated with portable generators, the CPSC failed to engage in the necessary rulemaking proceedings required by § 7.

### **CPSC Should Withdraw the NPR**

For all of these reasons, CPSC should withdraw the NPR. The proposed CO label is untested and based on unsupported assumptions about consumer perceptions of the risks associated with improper portable generator use. If it is determined that a uniform CO label is desirable or necessary, such a label should be based on adequate consumer testing and validation, including the label's effectiveness (or not) in conjunction with other warnings and instructions pertinent to portable generator use. Manufacturers and distributors of portable generators should also be consulted as part of this process, both to provide the benefit of their experiences and rationales for current label and warning approaches and to help coordinate proper and comprehensive testing and validation of any proposed new label. Without the benefit of consumer testing and industry participation, any proposal to mandate labels for portable generators lacks adequate foundation and, despite the worthy stated objectives, may do more harm than good. Finally, any mandatory labeling requirements should be promulgated pursuant to the proper statutory authority and procedures.

Respectfully submitted,

  
David P. Murray

cc: Emroy L. Watson, Esq.

# Consumers Union

Nonprofit Publisher  
of Consumer Reports

November 7, 2006

Office of the Secretary  
Consumer Product Safety Commission  
Room 502  
4330 East-West Highway  
Bethesda, Maryland 20814  
Via: [cpsc-os@cpsc.gov](mailto:cpsc-os@cpsc.gov) and  
Facsimile (301) 504-0127.

**Comments of Consumers Union of the U.S. Inc.  
to the  
Consumer Product Safety Commission  
on  
16 CFR Part 1407  
"Portable Generators; Notice of Proposed Rulemaking; Proposed Labeling  
Requirements; Request for Comments and Information"  
Notice of Proposed Rulemaking**

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## **Introduction**

Consumers Union (CU), publisher of *Consumer Reports* Magazine, submits the following comments in response to the Consumer Product Safety Commission's ("CPSC" or "Commission") request for comments and information in the above Notice of Proposed Rulemaking ("NPR").<sup>1</sup> CU commends the Commission for its attention to this important consumer safety issue. CU believes that the labeling provisions proposed in this NPR are a good first step in attempting to reduce the number of carbon monoxide ("CO") poisoning deaths caused by consumers operating portable generators in garages or other enclosed areas. However, we believe that the steady increase in generator-related carbon monoxide poisoning clearly demonstrates that education and warnings alone are not enough to protect consumers.

---

<sup>1</sup> 71 Fed. Reg. 50003 (August 24, 2006).

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## CU's Recommendations

CU believes that the most effective way to reduce injury and deaths from CO poisoning would be for all manufacturers to equip generators with a CO detector that will automatically shut down the unit if it detects dangerous levels of CO. Many generators on the market today have a similar automatic shut off system designed to cut off the equipment when it senses that the machine is low on oil. In addition, quality CO sensing devices are readily available and have already proven effective in preventing CO poisoning. Furthermore, the CPSC has itself demonstrated proof-of-concept of CO detection safety systems on portable generators in its own labs.<sup>2</sup> We applaud the Commission for its work in this area and urge the CPSC to proceed quickly to require CO detection and automatic shut-off safety features on all portable generators.

The effectiveness of a label, no matter how well designed, depends on the consumer's ability to read, comprehend, and follow its directions. In most situations in which a portable generator is used, consumers are operating them in the dark, possibly during a storm, while under pressure to act quickly to make the unit work. Such conditions are not conducive to reading a label or understanding its guidance.

We have some additional recommendations designed to improve the proposed labeling requirement, including:

- The main purpose of this label is to warn users that generators should only be used outdoors. That wording should be bold and included as the second line - **"FOR OUTDOOR USE ONLY."** The first sentence should remain - **"Using a generator indoors WILL KILL YOU IN MINUTES."**
- Under the two-way arrow in the pictogram on the right, the label should clearly state that the generator should be placed a minimum distance away from the enclosed space in order to prevent injury or death. Failing to recommend a specific minimum distance that a generator should be placed away from an enclosed area will leave it to the consumer's discretion as to the appropriate safe distance. The CDC has reported CO poisoning when generators were placed as far away as seven feet from a dwelling—a distance that many people would expect to be safe. If a consumer misjudges the appropriate distance, they could pay with their, or a member of their family's, life. We therefore recommend that "15 feet minimum" appear at the top of the arrow on the label to directly communicate safe placement.
- The pictorials are complicated, and unless they have been tested to verify that users can understand them, they should be simplified. For example, we suggest showing only one image of the generator being used in an enclosed space, with the line through it.

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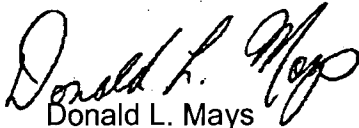
<sup>2</sup> ICPHSO tour of CPSC labs on, or about, May 10, 2006.

- It is important to position this label in a location on the generator where it is most likely to be seen and read, and away from other labels that would distract the user's attention. We believe that, in order to be noticed, the best location would be in close proximity to the "on/off" switch, the starter, or power outlets. It could be mounted on a flap that would need to be opened in order to run the generator -- this would require the operator to physically touch the warning label.
- The label could be "made active" (*i.e.*, made part of the process), by requiring the user to take an action that calls attention to the label, such as pushing a button near the safety device each time the generator is started. This feature could be modeled after similar ones that have been used on other dangerous products, such as lawn tractors. To prevent back-over accidents, many lawn tractors now have a momentary switch on the back of the unit that requires the user to face the rear of the mower and engage the switch before it will cut in reverse. For generators, a momentary switch could be incorporated into the label and require the user to press the switch (and read the label) each time the unit is started.

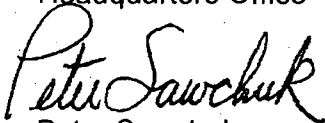
### Conclusion

We appreciate the opportunity to share our views on this important proposed rule to increase the safe use of portable generators. We strongly urge the Commission to move quickly to implement effective requirements, including a mandatory CO sensor.

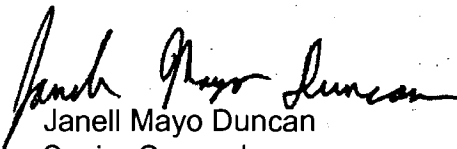
Respectfully submitted,



Donald L. Mays  
Senior Director  
Product Safety and Consumer Sciences  
Headquarters Office



Peter Sawchuk  
Program Leader  
Outdoor Power Equipment  
Headquarters Office



Janell Mayo Duncan  
Senior Counsel  
Washington Office

**Kosh, Martha A.**

**From:** Stevenson, Todd A.  
**Sent:** Wednesday, November 08, 2006 3:56 PM  
**To:** Kosh, Martha A. [REDACTED]  
**Subject:** FW: PORTABLE GENERATOR NPR  
**Attachments:** Comments on PORTABLE GENERATOR NPR.doc

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**From:** Kunio Hori (DAISHIN Japan) [mailto:k.hori@daishin-japan.co.jp]  
**Sent:** Tue 11/7/2006 8:44 AM  
**To:** Stevenson, Todd A.  
**Cc:** '株式会社ダイシン 開発課'; 'Hori, Eiichi'  
**Subject:** PORTABLE GENERATOR NPR

Dear Sir,

We, Daishin Industries Ltd., is a portable generator manufacturer in Japan, and would like to comment on the "Notice of Proposed Rulemaking" issued on August 24, 2006.

Attached is our comments on the notice.

We hope this will be a help for you.

Please let us know if you have any questions/concerns.

Thank you.

Best regards,  
Kunio Hori

\*\*\*\*\*  
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\*\*\*\*\*

## Comments on PORTABLE GENERATOR NPR

### 1. Definition of "Portable Generator"

We hereby request definition of portable generator should be conformed to the UL regulations.

Reasons: First, this suggested definition is very unclear; we can regard this definition covers either back-up type commercial power supply only or all the portable generators. Second, the confirmation of this proposed standard to UL enables us to hold the uniformed applicable scope both in law and regulation. This will be a strong benefit for us to response effective

UL2201 ;

#### **1 Scope**

**1.1 These requirements address the electric shock, carbon monoxide (CO), fire, and casualty aspects associated with the mechanical performance and the electrical features of portable engine-driven generator assemblies.**

**1.2 These requirements cover internal combustion engine-driven generators rated 15 kilowatts or less, 250 volts or less, which are provided only with receptacle outlets for the AC output circuits. The generators may incorporate alternating or direct current generator sections for supplying energy to battery charging circuits.**

### 2. Label Design

#### a. label on the products

Signal words should be "WARNING", not "DANGER".

Reasons;

We question the content of the recommended label itself.

The use of the signal words "DANGER" brings inconsistency to the poster regarding the danger with generator, distributed to the generator industry by hierarchy of risk factor defined in ANSI Z 535 and the committee in Sep. 2005.

Your letter doesn't mention this contradiction

This hierarchy of promoted warning words is the result of great effort and expert knowledge including the one of the committee members, which have been studied over 20 years. We should not change the well prevailed practice casually. Should we accept the utilization of word "DANGER" for carbon monoxide

poisoning as the proper suggestion, this change into DANGER level will cause the possibility that warning to urgent danger caused by the equivalent factor, especially 3 risks (fire, electric shock, reverse connection to the commercial power supply), might undermine and cause undesirable and unexpected influence.

Pictograph; the content should be "DO NOT USE IN A CLOSED PLACE" only

Reasons:

Garages and houses don't have to be separated. Only the picture showing 'DO NOT USE IN A CLOSED PLACE' is required. Picture used in the garage might cause misunderstanding that generator must not be stored in the garage, and the picture of putting the generator separately from house with arrow might make customers misunderstand they should connect the generator by electric wire as the back-up of the commercial power supply. Thus, we think any other picture are not needed.

Nix sign: ⊗ sign, recognized internationally should be used instead of X.

Reasons:

Customers will understand the meaning of the picture better by ⊗.

The poster regarding the danger with generator, distributed to the generator industry by the committee in Sep. 2005 showed ⊗ sign.

We wonder why staffs changed the sign ⊗ to X

b. Label on the package

Necessity of indication: We regard it as unnecessary. We object the proposal.

Reasons:

We consider that the package indication will cause little effect since users discard the package immediately after their purchase. The CPSC hasn't offered the reasons why the package indication is needed. Thus, we cannot understand the intention

c. Difference of the Product/Package Label

Package label: We regard it unnecessary. At the same instant, we regard the same label both for package and machinery be acceptable.

Reason:

Caution sentence "Please read the manual before use" is already attached to the generator with another label.

3. Label location

a. Product

We propose the deletion of the regulation "on the spare part that is indispensable for the generator function. Instead, we propose to add the phrase "on the spare part which needs tools to be removed"

Reason:

The definition for the spare parts which lead the generator to malfunction without them is unclear. The label attached point is also obscure; Some generators (e.g. full-covered type) doesn't have the conformed point to the proposed regulation.

b. Package

We do not agree to place a label on the package.

Reason:

We regard the effect of the warning on the package is less effective, because the package/carton is disposed once it is open.

In addition, the reason of the necessity of the label on the package is not clearly pointed out by CPSC.

4. Multi-Language

We consider it is not necessary.

Reason:

Once one language is utilized, other languages are also required one after another.



5. Lead Time

We request six month lead time after issuance of regulation.

Reason:

We need approximately 6 month in total for updating drawings, preparation and response for commercial production, and transportation.

E.O.R.