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Consumer Product Safety

Proposed Regulations for Intentional Ozone Generators

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Dear Stakeholders:

Subject: Proposed Regulations for Intentional Ozone Generators

The purpose of this document is to provide you with information concerning an initiative that relates to the hazards posed by ozone exposure from intentional ozone-generating air treatment devices (hereby referred to as ozone generators) and to solicit your input with respect to the proposal. This project is currently in the pre-consultative phase of regulatory development. Stakeholders are therefore encouraged to submit any information and comments which may be of interest in the development of the proposed regulations.

Health Canada has sufficient evidence that exposure to ozone gas produced by ozone generators poses a direct hazard to the health and safety of Canadians of all ages. Health Canada's Consumer Product Safety Bureau (CPSB) is seeking the views of affected stakeholders such as industry on a proposal that, under the *Hazardous Products Act* (HPA), **would put in place legally binding requirements to limit the amount of ozone produced by these products that are sold, advertised, and imported into Canada. This is directly in line with actions currently being taken by our U.S. counterparts in the California Air Resources Board (CARB) who are working on Assembly Bill 2276 (2006, Pavley). This will enact State of California legislation to limit the amount of ozone generated by these products to 0.05 ppm (parts per million) by December 31st, 2008.**

This [consultation document](http://www.hc-sc.gc.ca/cps-spc/legislation/consultation/index-eng.php) may also be viewed online at:
<http://www.hc-sc.gc.ca/cps-spc/legislation/consultation/index-eng.php>

Background

Ozone gas (O₃) is one of the most powerful oxidizing agents known, making it a useful cleaner. However, it is also an irritant that can cause coughs, chest discomfort, and irritation of the nose, throat, and trachea (Health and Welfare Canada, 1989). Due to the indiscriminate nature of this molecule, it will attack and damage human tissues as well as airborne contaminants. Individuals who have pre-existing respiratory conditions are typically the purchasers of intentional ozone generators since many are marketed as devices to clean the air and relieve the respiratory conditions. Health Canada conducted a study which showed that both high and low concentrations of ozone can be detrimental to human health (Vincent, R., Guenette, J., and S. Bjarnason, 1998). High levels of ozone resulted in immediate oxidizing effects and cellular death, while low levels of ozone resulted in an interference with metabolic processes in the body and eventually caused premature cellular aging.

Rationale

Since 1999, Health Canada has taken a number of non-regulatory actions to help minimize the effect of intentional ozone generation on the health of Canadians. **These actions have included an Advisory, a Warning which included a list of affected brand names and models, and the implementation of a moratorium on the approval of ozone generators in cooperation with the electrical authorities and certification organizations.**

Despite all of these efforts, these products continue to be sold. It is estimated that between 14,000 to 28,000 residential intentional ozone generators are sold annually in Canada (Vodden and Rucker, 2003). Combining this information with an average household containing 2.6 residents (Statistics Canada, 2002) means that somewhere between 36,400 to 72,800 **Canadians are exposed annually to ozone purposely generated in their households.**

An economic analysis study completed in 2003 outlined the **potential costs and benefits that would arise from the proposed measure of regulating residential ozone generators.** The study concluded that an annual benefit of roughly \$1 million to \$490 million (2002 Cdn\$) can be expected. This value corresponds to approximately tens of thousands to millions of avoided health outcomes spanning a range of severities.

The regulatory proposal will include testing methods for manufacturers to utilize in determining the ozone output from their products. When developing these methods, Health Canada will consider existing and proposed testing methods including, but not limited to, those developed by the Underwriters Laboratory of Canada (ULC), the Canadian Standards Association (CSA), the American National Standards Institute (ANSI), and the American Society for Testing and Materials (ASTM).

Your Comments

Health Canada is committed to ensuring that affected stakeholders, in particular industry, have the opportunity to participate in the development of initiatives that result in legally binding requirements. Accordingly, you are invited to forward your comments by mail, e-mail or fax to the Consumer Product Safety Bureau by December 21, 2007.

To receive regular updates about Consumer Product Safety issues including the proposed regulations for ozone generators, please subscribe to 'Consumer Product Safety News', our electronic newsletter. Subscribers receive updates when new information, consumer advisories and warnings, juvenile product recalls, and consultation documents regarding **consumer product safety issues** are posted on the Health Canada Website:

<http://www.hc-sc.gc.ca/cps-spc/advisories-avis/index-eng.php>

In addition, we are migrating to an electronic format for stakeholder information distribution to increase our efficiency and response time. This means we will be exclusively using faxes and electronic mail rather than conventional lettermail. Please forward the e-mail and/or fax contact for your company or association to the address below.

Mail:

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