CANADIAN ENVIRONMENTAL LAW ASSOCIATION
L'ASSOCIATION CANADIENNE DU DROIT DE L'ENVIRONNEMENT

April 18, 2012

Ms Lynne Gibbens
Secretary, Canadian National Committee of the International Electrotechnical Commission (IEC)
Standards Council of Canada
270 Albert Street, Suite 200
OTTAWA, ON K1P 6N7
Canada
VIA FAX : 613 569 78 08

Dear Ms Gibbens,

Re : April 26, 2012 vote by Canadian Technical Committee 108 on proposals for candle-resistant, flammability standards for plastic television casings.

We write today asking for this letter and associated documents to be circulated to your committee in advance of its forthcoming meeting on April 26th when a vote will be taken on the issue of proposed candle-resistant flammability standards for plastic television casings. We understand that your committee's vote, with comments, is to be forwarded on Canada's behalf, to the International Electrotechnical Commission Technical Committee 108 (IEC TC108) for its consideration of proposed amendments to International Standards 60065 and 62368 for candle resistance of television enclosures.

Specifically, we have serious concerns, elaborated below, about these proposed standards as they offer no fire safety benefit and have the potential to add to the human health and environmental risks already posed by brominated flame retardants. **We respectfully ask that committee members:**

- **vote "NO" to 108/478A/CDV and 108/479/CDV.**
- **recommend removal of the mandatory candle flame ignition requirement in Clause 11 of IEC 62368-1 Ed 2.0 (108/479/CDV) and Clause 21 of IEC 60065 Ed 8.0 (108/478A/CDV) and related language and references.**
- **include supporting comments on their vote informed by the following input.**

About CELA
The Canadian Environmental Law Association is a public interest organization founded in 1970 for the purposes of using and improving laws to protect public health and the environment. Funded as a legal aid clinic specializing in environmental law, CELA represents individuals and groups in the courts and before administrative tribunals on a wide variety of environmental matters. In addition, CELA staff members are involved in various initiatives related to law reform, public education, and community organization.

CELA has a long history of work addressing the regulation of toxic substances. We have conducted extensive research, summarized the scientific literature, and created a wide range of public outreach materials, about associations between toxic substances and impacts on fetal development and child

health. We have also recently completed a comprehensive scoping review of the literature concerning early environmental exposures and associations with several chronic diseases.[1]

The Toxic Legacy of Brominated Flame Retardants

Across our research, and reflected in voluntary phase-outs and stringent regulatory action by Canada and by the international community through the Stockholm Convention on Persistent Organic Pollutants (POPs) over the past decade, brominated flame retardants, specifically the polybrominated diphenyl ethers (PBDEs) arise repeatedly as substances of significant concern. These chemicals are associated with multiple health endpoints including developmental neurotoxicity, cancer, infertility and reduced sperm counts.[2] They are also suspected as carcinogens as well as suspected obesogens,[3] compounds for which early life exposure may contribute to latent obesity via epigenetic and endocrine disrupting mechanisms. Data about exposure sources,[4],[5] whether from indoor dust samples, food and breast milk analysis, or human biomonitoring data, indicate widespread exposure with greater exposure at times of greatest vulnerability – in the womb and early childhood.

Despite worldwide regulatory action, including the addition of these substances to the Stockholm Convention on POPs, (alongside the most toxic substances ever created including dioxins, furans, PCBs and organochlorine pesticides), PBDEs constitute a dangerous legacy of contamination. Because of their use in myriad consumer products, often durable goods such as large furniture items and expensive electronics, scientific evidence confirms their presence in house dust, that this is the single most important exposure source for young children, and the likelihood that this exposure will continue for many years into the future. Alongside our efforts to seek a complete ban on these dangerous substances, this toxic legacy from older products underlines our focus on dust control in public outreach materials for parents and prospective parents.[6]

Brominated flame retardants have been detected extensively in the environment, notably in the Arctic and Great Lakes ecosystems due their propensity to persist, bioaccumulate and travel to remote regions through long range atmospheric transport.

As a result of regulatory action against PBDEs (after 20 years of accumulated research demonstrating their risks), the chemical industry is replacing them with other brominated and/or chlorinated organic compounds. Toxicity data for some of the chemicals should raise alarm bells and scant data exist for other replacement chemicals. However, by analogy, we know that these chemicals should be avoided due to their environmental persistence and potential toxicity. It is therefore of great importance that new uses of these dangerous chemicals should be avoided.

---

[1] Cooper K, Marshall L, Vanderlinden L, and Ursitti F (2011) *Early Exposures to Hazardous Chemicals/Pollution and Associations with Chronic Disease: A Scoping Review*. A report from the Canadian Environmental Law Association, the Ontario College of Family Physicians and the Environmental Health Institute of Canada. http://www.cela.ca/publications/EE-and-CD-Scoping-Review

[2] Shaw SD, Blum A, Weber R, et al Halogenated Flame Retardants: Do the Fire Safety Benefits Justify the Risks? *Reviews on Environmental Health* 2010; 25(4):261-305.

[3] Hoppe AA, Carey GB. Polybrominated diphenyl ethers as endocrine disruptors of adipocyte metabolism. *Obesity* 2007;15:2942-50.

[4] Harrad S, Ibarra C, Diamond M et al Polybrominated diphenyl ethers in domestic indoor dust from Canada, New Zealand, United Kingdom and United States *Environment International* 34 (2008) 232–238.

[5] Zhang, X, Diamond ML et al Multimedia Modeling of Polybrominated Diphenyl Ether Emissions and Fate Indoors *Environmental Science and Technology* 2009; 43(8):2845-2850

[6] See multiple resources online at www.healthyenvironmentforkids.ca

A Second Attempt by the Bromine Industry to Garner Market Share Via Efforts to Change International Standards

This is the second time we have corresponded with your committee on this issue. We wrote in 2008 when a similar attempt was made by the bromine industry to influence the international standard-setting community; **an effort which we are glad to recall the Canadian committee, among others, rejected**. We thank you for that decision in 2008, a decision that we are also aware that your committee repeated in 2010. We strongly encourage you to vote "no" again.

The arguments against these new proposals remain equally compelling. Your support this time around for removal of the mandatory candle flame ignition requirement in these standards would prevent your time being wasted in any future such attempts by this industry to garner market share via attempts to influence international standards.

As was the case in 2008, there is no valid fire safety reason for the proposed candle-resistance requirement. There are no objective data showing that candle ignition is a fire hazard in TVs. Data cited by the bromine industry are nearly two decades out of date and do not reflect a dramatic shift in television technology to low-voltage flat screen and wall-mounted units with a greatly decreased fire hazard. The clauses in the proposed standards would require that televisions withstand a three minute vertical candle flame ignition test. No published data indicate that such a fire risk existed even for older televisions much less for more recent flat screen and wall-mounted technology. The bromine industry is seeking a standard to provide a "solution" to a problem that does not exist. In doing so, they risk exacerbating the existing problem of 75% of Canadians having a brominated flame retardant formulation in their bodies as has been confirmed in biomonitoring data collected by the Government of Canada through the Canadian Health Measures Survey (CHMS).[7]

Compelling Health and Environmental Reasons Exist to Reject These Proposals

While your committee may consider performance standards and not specific chemicals that may be used to meet these proposed standards, we believe that you cannot separate these matters. It must be recognized that, if accepted, the most likely means of achieving these unnecessary candle-resistance standards will be with the use of additive gas-phase flame retardants, of which halogenated organic compounds are frequently used.

Indeed, very large amounts of these chemicals would be used and, as is the case with their use in other products, they are not chemically bound. As a result, they would contribute to the already well-known risk of these toxic substances migrating from TVs into the indoor environment where they partition to house dust and create an indoor health hazard. An issue also raised with the committee in 2008 and 2010, is the fact that the use of these chemicals in electronics makes recycling and electronic take-back systems more difficult, expensive, and in some cases, impossible. Another serious hazard arises if fires do occur and such products are burned. Firefighters raised concerns in 2008, and continue to do so, noting that highly toxic chemicals, including brominated dioxins and furans, are produced when such products are burned increasing the risk to firefighers and the environment.

[7] Health Canada, 2010. Report on Human Biomonitoring of Environmental Chemicals in Canada. Results of the Canadian Health Measures Survey Cycle 1 (2007-2009)

In addition to the foregoing, we refer you again to details provided in submissions made in 2008, and updated recently, in the report entitled The Case Against Candle Resistant TVs.[8] As explored in detail in this report, the fire risk from the external candle flame ignition of televisions that these proposals are allegedly intended to address is trivial in comparison to the much larger threat of adverse health impacts from further environmental contamination by brominated flame retardants.

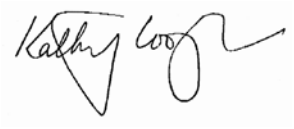
In conclusion, we note that your committee has a crucial role to play with this decision in protecting public and environmental health.

We urge you to reject this needless standard and ensure that Canada will submit a "NO" vote on 108/479/CDV and 108/478A/CDV. In addition, we urge you to ask for removal of the mandatory candle flame ignition requirement in Clause 11 of IEC 62368-1 Ed 2.0 (108/479/CDV) and Clause 21 of IEC 60065 Ed 8.0 (108/478A/CDV) as well as all related language and references.

We would be happy to discuss this issue with you further.

Yours very truly,

CANADIAN ENVIRONMENTAL LAW ASSOCIATION



Kathleen Cooper
Senior Researcher

c.c.
Via fax:
Mr Keith Rodel 613-569-7808
Via email:
Mr. Cliff Rondeau Cliff.Rondeau@csa.ca
Mr. Steven Lawrence stelawre@cisco.com
Ms. Christine Geraghty cgeraghty@scc.ca

[8] The Case Against Candle Resistant TVs (http://greensciencepolicy.org/sites/default/files/MASTERWhitepaper.pdf) and Blum A The Case Against Candle Resistant TVs, Version 3-28-2012, http://greensciencepolicy.org/sites/default/files/Current%20Case%20against%20Candle%20Resistant%20TVs%20IEC%20March%2028%202012.pdf