Submissions of the Canadian Environmental Law Association in response to Health Canada's Draft Lead Risk Reduction Strategy

draft posted on-line at:
http://www.hc-sc.gc.ca/ehp/ehd/psb/consumer/lrrs.htm

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The Canadian Environmental Law Association (CELA) is a non-profit public interest organization specializing in environmental law and policy. It is also a legal aid clinic within Legal Aid Ontario and provides legal representation to individuals and groups eligible for legal aid on matters of environmental law. CELA's involvement in policy reform and casework related to environmental and consumer product lead contamination has been longstanding and detailed. We have closely followed the very lengthy process of developing this Lead Risk Reduction Strategy. While there are some welcome aspects to the draft, we note several shortcomings that significantly limit its overall effectiveness in ensuring that childhood lead exposure is prevented.

General Comments

We offer the following general comments, most of which are expanded upon below. We strongly support the proposal to put in place a regulatory approach and consider it long overdue. We also strongly support the statement in the strategy that: " the proposed regulations, by specifying lead content limits for various product categories, are proactive and thereby promote the distribution of safe products." However, we dispute that a proactive approach is actually proposed, given the multi-year delay in putting a lead reduction strategy in place and omissions of key categories of products in this current draft, discussed further herein.

We continue to dispute the notion applied by Health Canada in many areas of lead regulation that children can be protected from lead exposure by regulations that are limited by the phrases "intended for children" or "frequented by children." As a persistent substance that is highly toxic at very low levels of exposure, lead use should be restricted to only those few uses where alternatives are not available. Moreover, the assumption that lead exposure is not a risk from consumer products, such as inexpensive and readily available lead-containing jewellery, just because that jewellery is not "intended for children" is an unreasonable and reckless distinction. Similarly inappropriate is the allowance in the Liquid Coating Materials Regulation to use leaded paint in interior spaces that are not "frequented by children." Children do not live in a bubble unaffected by consumer products purchased by adults (or readily available to them because they are inexpensive) or by changes in the use of buildings.

The proposed strategy will not cover at least three important areas of lead exposure. First, the strategy would not prevent, or even be able to react with regulatory measures, to another situation comparable to the plastic mini-blinds fiasco. The discovery of lead dust released on the surface of plastic mini-blinds resulted after several children were poisoned. The blinds also exposed millions of children, pregnant women and women of

child-bearing age to high levels of lead and contaminated millions of interior spaces. Plastic mini-blinds were removed and disposed of in the tens of millions, or not, and they are still found in thrift or re-sale stores. Second, the strategy would also not cover coaxial video cables and vinyl extension cords and related products for which Health Canada has evidence of high levels of lead contamination. Third, the strategy does not adequately cover, as noted above, exposure from lead-containing jewellery. These latter two categories of products containing hazardous levels of lead remain readily available in Canada.

Finally, the draft strategy contains a thorough review of the well-known hazards of lead exposure. We have made specific comments below but note in general that such a review is adequate to support a much stronger regulatory response than is proposed. One significant omission is the fact that greater lead absorption occurs in children where nutritional status is compromised. This omission is significant given the fact that one-in-five Canadian children live in poverty, greatly increasing the chance of sub-standard nutrition. There is no indication in the materials provided that Health Canada's risk assessment calculations account for this situation. We do not have the time and staff resources necessary to undertake a full review of the risk assessment documentation. However, since the draft strategy is again delayed, we are interested in reviewing this material.

Specific Comments

Section 2.0 - Background
Section 2.1 – Properties and Uses of Lead

- Second paragraph citation to footnote 17 seems in error.
- Third paragraph reference to wide availability in environment should note the overwhelming contribution of lead in gasoline to global environmental contamination.

Section 2.2 – Toxicity of Lead

- Second paragraph reference to children's smaller skeletons being the reasons for more lead being in children's soft tissues seems partially inaccurate. You should check whether the reasons are physiological as well as physical. Our recollection is that key aspects of a child's physiology and metabolism, including bone development, are as much involved as the physical fact of a smaller skeleton. It is also our recollection that lead more easily crosses the blood-brain barrier in a child than in an adult. Time does not permit us a review of the literature to clarify these matters but this information should be checked for Health Canada's draft.

Section 2.3 – Exposure to Lead

- Second paragraph reference to mobilization of stored skeletal lead through the

placenta should also mention mobilization during lactation to breast milk as an additional, albeit less significant, exposure source.

Section 2.4 – Lead Exposure in Canada

- First paragraph refers to Health Canada intending to "reflect current scientific and medical knowledge" in amendments to regulations for lead in paint. Adequate knowledge existed in the United States 26 years ago to apply the standard Health Canada is now considering. *What confidence can Canadians have in statements that the proposed Lead Risk Reduction Strategy is taking a "proactive" approach when Health Canada still can't put in place a regulation instituted in the United States 26 years ago?*
- The graphical representation in this section showing the decline over time of lead in air represents a laudable trend. However, it is misleading in terms of environmental lead contamination from historical leaded gasoline use and can create unwarranted complacency about ongoing exposure sources. The accumulation of lead in urban dust and soil from the 70 years of leaded gasoline use has created a huge reservoir of lead contamination that will be an ongoing exposure source for decades to come. The discussion in Appendix C, Lead Toxicity, page 40, supports this concern. Scientific research confirms that even in recently built homes unaffected by old lead-bearing paint, airborne lead is settling on interior surfaces.
- Even more unwarranted in this section is the implied notion that the Canadian government acted responsibly in regulating lead out of gasoline. For nearly ten years, Health Canada and Environment Canada were dragged reluctantly and far too slowly towards taking responsible action on the regulation of lead in gasoline. At the time noted in the second paragraph, the early 1980s, Canada's standard for lead in gasoline was the most lenient in the world. The Canadian government consistently refused to take swifter regulatory action to phase-down and phase-out lead from gasoline, always lagging many years behind other countries. Despite the fact that Canadian children were as dangerously exposed to lead as children in other countries, the Canadian government refused to accept the increasing evidence from independent scientists about the hazards of low-level lead exposure. The regulatory action taken in 1990 to control lead in gasoline occurred because of effective political pressure applied by child health and environmental public interest organizations. That pressure (widely reported in the media and supported by editorial writers across the country) was applied during the run up to the federal election of 1988. If it had not been an election year, it was clear to everyone observing the actions of the federal government, particularly the actions of Health Canada, that the federal government intended to accept the industry position of allowing lead in gasoline until the end of 1992, poisoning many more thousands of Canadian children in the process. To imply that Canadian regulatory action on lead in gasoline was responsible, much less proactive, is misleading, revisionist history.
- Similarly, the characterization of the reduction of lead in cans, ceramic glazes, cosmetics, secondary lead smelters, etc. as being the result of regulatory

intervention and improved industrial practices is equally revisionist history. In all of these areas, if regulatory action was even taken, it was generally weak and reactive, following the discovery of problems. Limits were based on what the industry could easily accommodate rather than on preventing harm to children. The text also ignores the primary and instrumental role played by child health, environmental and citizen groups in calling to attention these problems and insisting, often for years on end, that regulatory action be taken. It is inappropriate for Health Canada to take credit for work it did not do, or in many cases refused for years to do, and not to give credit where it is due. It is particularly inappropriate to leave out the role of citizens groups affected by secondary lead smelters since their children were severely poisoned long before there were any controls "through regulatory intervention and improved industry quality assurance programs." Industry is not the only non-governmental stakeholder to include in providing a historical summary of "Lead Exposure in Canada."

- These concerns are raised because it is fair to say, and has been well documented, that Canadian federal regulation of the many sources of lead has been reactive and slow. This situation is acknowledged, with respect to the *Hazardous Products Act*, in the draft Lead Risk Reduction Strategy on page 12, Section 4.2. The Lead Risk Reduction Strategy is unfortunately continuing this approach by the very fact that it has taken five years to get to yet another draft that does not include key areas of lead hazards.

Section 3.0 – Hazards Associated With Leaded Consumer Products
Section 3.1 – Introduction

- Final paragraph in this section sets up a "straw man" to knock down. The statement is made that trace amounts of lead are ubiquitous and therefore zero lead content in products is not feasible. To such a statement we would reply that zero lead content is not possible in people's homes either due to environmental lead contamination. However, people also do not, or would choose not, to intentionally bring additional lead into their homes. As such, they should be able to rely on federal regulations that take the same approach. Earlier statements from Health Canada about the Lead Reduction Strategy said that a regulatory approach would require that there be "no intentional addition of lead" to consumer products. The draft Lead Risk Reduction Strategy has significantly backed away from this approach (discussed further below).
- Also in the final paragraph, the above statement is followed by another to the effect that, for the same reason, (environmental contamination means you can't get to zero in products), it may be difficult to establish a link between exposure to a given consumer product and elevated blood lead levels. The toxic effects in children of very low exposure to lead are well known and well summarized in this draft strategy. Included is the statement that there probably is no safe level of lead in children. This statement is widely accepted by the majority of scientists and medical experts on lead who also happen to be unaffiliated (now, or in past) with lead industry research funding.
- In short, lead is inherently toxic. Hence, the draft strategy's introduction to the

issue of "Hazards Associated with Leaded Consumer Products" containing the two statements noted here, serves to undermine the strength of a regulatory response with a specious argument.

- The section should instead note that Health Canada's regulatory response to lead in consumer products is to be based upon an expectation that lead, as an inherently toxic substance already at unacceptable levels of contamination in the environment, should not be intentionally added to consumer products. Under such an approach, exceptions for permitted uses of lead, should be those uses where alternatives do not currently exist. With such an introduction, the statements introducing Section 6.0 (discussed further below) concerning the choice of a hazard-based approach would be valid and the strategy could be expanded, as it should be, to the full range of consumer products creating lead risks.

Section 3.2 – Incidents Involving Lead in Children's Products

- Although the draft strategy limits the regulatory approach to "children's products" and to toys or jewellery "intended for children", this section reveals the flawed logic of that approach. The documentation provided in the draft strategy of incidents during the past ten years of "lead in children's products" includes two areas that are not "children's products" and that would not be covered by the regulations proposed in the draft strategy – namely the plastic mini-blinds and lead-containing jewellery that is sold, ostensibly, to adults.
- The review in this section of Health Canada's unsuccessful attempts to urge retailers to not sell lead-containing jewellery confirms the inadequacy of a voluntary approach.

Section 4.0 - The Lead Risk Reduction Strategy
Section 4.1 – Health Canada's Lead Risk Management Policy

- The final paragraph in this section states:

  > The Consumer Product Safety Bureau [of Health Canada] supports the OECD and Summit of the Eight declarations and takes the position that any human health risk associated with the unnecessary addition of lead to consumer products is unacceptable.

  If the above statement is truly the case, this draft Lead Risk Reduction Strategy needs to be substantially revised.

Section 5.3.2 – Voluntary Compliance Program

- The final paragraph discussing a Voluntary Compliance Program notes that such an approach will not be useful citing the example of industry response to Health Canada's requests for voluntary controls of both mini-blinds and lead-containing jewellery. It concludes:

  > It is unlikely that the [Voluntary Control Program] would result in acceptable reduction of lead content in unregulated products within a reasonable period of time.

While this statement is of course a true reflection of what happened with the mini-blinds and continues with leaded jewellery, to cite these as examples as a failure of a voluntary approach is curious since they would both be omitted from the regulatory proposals made in the draft strategy. Instead, this rationale could be used elsewhere in the draft strategy to support the need to regulate lead-containing jewellery regardless of whether it is "intended for children." Similarly, it is a rationale for not allowing lead in household products that have the potential to either provide direct exposure or contaminate the indoor environments of children, pregnant women and women of child-bearing age. Since everyone passes through at least one of these life-stages, it is not logical to exclude from the rationale for a regulatory strategy the fact that lead is inherently toxic and does not break down, providing for opportunity of continued accumulation in both indoor and outdoor environments the more it is permitted to be used in consumer products.

Section 6.0 – Proposed Regulations Under the Lead Risk Reduction Strategy (LRRS) for Consumer Products

- This section is introduced with the following statements:

  > The LRRS takes a precautionary stance by using a hazard-based rather than a product-based approach to regulating lead content in consumer products… Since the proposed measures are hazard-based rather than product-based, they will provide an effective means of controlling lead exposure from a wide range of consumer products rather than a few specific products. The advantage of a hazard-based approach is the broader regulatory coverage which it gives, addressing hazards which are common to many products. This approach places the responsibility of controlling the hazard on the manufacturer by limiting the lead content in regulated product categories.

  While these statements are welcome and deserving of strong support, the draft strategy does not live up to them. To truly live up to these statements, the first step is to revise the introductory statements in section 3.0, as discussed above, i.e., to make it clear that this regulatory approach is one that recognizes the inherent toxicity of lead and therefore expects "no intentional addition of lead" to consumer products. Also, for a hazard-based approach to be truly the case, the strategy would apply to the full range of consumer products capable of creating lead risks. Specifically, the notion of focusing only on jewellery "intended for children" should be removed and household consumer goods should be included. While the draft strategy does state in Section 6.1 that a separate strategy will be developed for "Household Furnishings and Fittings with which Children are Likely to Interact" a hazard-based approach should not require further delay. Nor should the strategy be limited to children. Women of child-bearing age and pregnant women are equally at risk of lead exposure. While children tend to be at greater risk due to their habits and other characteristics, the fact of cumulative, lifetime exposure in girls and women, cannot be ignored. As a persistent toxin

that accumulates in the body and mobilizes during pregnancy and lactation, it is not appropriate to limit the regulatory response to children. A hazard-based approach is not being taken with this limitation continually applied.

Section 6.2 – Proposed Regulations

Groups 1 and 2

- As repeatedly noted, the inclusion of jewellery in these Groups should not be limited to that "intended for children". Inexpensive jewellery containing excessively high levels of lead is commonly available in Canada. It is not labelled as intended for either adults or children and it is not labelled to warn of lead content. A sample of this hazardous jewellery is enclosed with this submission. It will readily create a grey line of lead if used to draw on paper and such lead will readily contaminate skin when handled. The enclosed necklace was purchased at a sale price of five necklaces for ten dollars at an *Ardene* store. This chain of stores is found across the country and caters to children, the prices being well within their reach. When asked about the lead content of the necklaces and the warning letters sent by Health Canada, the store clerk had no knowledge of either. In addition to creating a hazardous exposure source of lead for children, women of child-bearing age and pregnant women would be exposed to lead just by handling such jewellery.
- We support the low levels of migratable lead proposed for these regulations for Groups 1 and 2. We also strongly support the statements at the end of section 6.2.2 regarding the intention to ensure that products have "no intentional addition of lead [during] manufacture." However, as noted, this statement should be an overarching principle of the regulation and stated up-front as the expectation of manufacturers and the reason for which the regulation has been established. It should be combined with the statements at the beginning of Section 6.0 concerning the regulatory choice of a hazard-based approach.

Groups 3 and 4

- For the regulatory limit of 600 mg/kg for the Group 3 and 4 products, we consider this limit too high.
- In contrast, the United States Consumer Product Safety Commission has recommended a limit of 200 mg/kg for lead in plastic mini-blinds. 200 mg/kg is also the revised guideline for the removal of lead-contaminated soil in Ontario. Both of these limits have been established on the basis of detailed investigations of the hazards of lead exposure. There is no reason for Health Canada to propose 600 mg/kg rather than the lower health-based limit of 200 mg/kg. Of more serious concern is the fact that it appears the proposal is based on out-dated information. The statement is made on page 21 of the draft strategy that the limit of 600 mg/kg "was determined by a risk assessment which calculated that 600 mg/kg of lead in paint was the threshold level, at or below which there would be no significant lead

exposure in a child consuming a one square inch paint chip each day." As noted in the submissions on this draft strategy by the Learning Disabilities Association of Canada, this calculation is based on seriously out of date and inadequate information. Rather, a 600 mg/kg paint chip would result in about 60 micrograms of lead ingestion, likely to contribute to exposures greater than the World Health Organization maximum limit for lead ingestion of 3.5 ug/kg/bw/day. Likewise, an ingestion of 60 micrograms of lead can be compared to the United States Consumer Product Safety Commission recommendation that chronic ingestion not exceed a maximum of 15 micrograms of lead per day from all sources. Without access to the risk assessment documentation noted it is difficult to assess what appears to be an error. We are however reminded of a significant error in Health Canada's risk assessment of the plastic mini-blinds (as documented in our report on standard setting and children's health[1]). Given all of the above, we question the integrity of the documentation used to support this calculation and the final limit chosen.

- Finally, for Group 3, the reference at the bottom of page 20 of the draft strategy to "recent amendments to the Liquid Coating Materials Regulations" appears to be in error and also contradicts statements on pages 6 and 39 about these amendments being "in preparation".
- For Group 4, for the same reasons noted above, we dispute the level of 600 mg/kg as not adequate for providing health protection. We also note that the reference, in the rationale for Group 4, that the existing regulations for various food containers are exempted, presents a wasted opportunity to revise and strengthen regulatory limits that are over 25 years old. The allowable levels of lead in these older regulations were set when information about lead toxicity considered lead to be safe at levels nearly ten times higher than is considered acceptable today. These regulations should not be exempted from this draft strategy, they should be updated.

Group 5

- As noted for Groups 3 and 4, for health reasons, we consider the limit of 600 mg/kg to be too high. It also seems unnecessary to place such a limit when the *presence* of lead is what is at stake. Lead wicks are made out of lead; they are not likely to be manufactured with only small amounts of lead to meet this regulation. Surely the intention should be to remove the use of lead in candle wicks altogether. If the regulation is intended to get at limiting the amount of lead to at or below what can occur due to environmental lead contamination, then it should say so. This Group should also be governed by the over-arching principle of "no intentional addition of lead."

In conclusion, we urge Health Canada to revise this draft strategy to truly adhere to the "hazard-based" approach that it professes to apply but in fact does not yet do so. In

[1] Canadian Environmental Law Association and Ontario College of Family Physicians Environmental Health Committee, *Environmental Standard Setting and Children's Health*, May 2000. Case Study #1: Standard Setting for Lead – The Cautionary Tale, at pp. 264-265. At: www.cela.ca

particular, the strategy should apply the overarching principle of "no intentional addition of lead" to all consumer products. Exceptions should be spelled out as only those products where no reasonable alternatives currently exist such as the lead required to manufacture automotive batteries. Particular attention within such exceptions should be paid to whether or not viable alternatives are possible for the lead used in computer equipment given the very large contribution of lead to the waste stream from the information technology and telecommunication sector.[2] Since the broad category of consumer and household products remain to be covered within Health Canada's overall strategy and since there is now a delay until the fall for the consultation, it would seem possible to make recommendations for expansion of the draft strategy for consideration during that consultation meeting.

In addition to the many points raised herein, we wish to underline the need to remove from the draft strategy the notion of distinguishing products as "intended for children" or areas "frequented by children." Children come into contact with consumer products in all aspects of their lives whether those products are "intended" for them or not. Further, everyone is a child at some point and the cumulative exposure to lead across the lifetime of girls and women create exposure sources for their unborn children.

[2] See: *Information Technology (IT) and Telecommunication (Telecom) Waste in Canada*. Report prepared for Environment Canada, National Office of Pollution Prevention, October, 2000 by Envirosris.