PREVENT CANCER NOW

CSM
Chemical Sensitivities Manitoba

www.PreventCancerNow.ca

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Topic: Notice of Intent (NOI) to develop regulations with respect to formaldehyde - Canada Gazette Part 1 Vol. 151, No. 11 — March 18, 2017.

Chemical Sensitivities Manitoba and Prevent Cancer Now are responding to the Notice of Intent (NOI) to develop regulations with respect to formaldehyde - Canada Gazette Part 1 Vol. 151, No. 11 — March 18, 2017.[1] Formaldehyde is a substance listed on schedule 1 of the *Canadian Environmental Protection Act, 1999 (*CEPA).

As a highly reactive small molecule that can accumulate in the indoor environment, formaldehyde exerts numerous negative effects on human health. The chemical reactivity exploited in resin hardening also causes irritation, inflammation, sensitization, and can result in cancer. Similar chemistry is utilized for urea-formaldehyde resin in wood products as was used in the now-banned urea-formaldehyde foam insulation. Formaldehyde is used in excess so new products off-gas for a period of time. Formaldehyde may also be generated if the composite wood product degrades with moisture.

[1] Notice of Intent (NOI) to develop regulations with respect to formaldehyde - Canada Gazette Part 1 Vol. 151, No. 11 - March 18, 2017. http://gazette.gc.ca/rp-pr/p1/2017/2017-03-18/html/notice-avis-eng.php#footnote.51214

In the indoor environment, composite wood products may also emit other toxic chemicals such as vinyl chloride from a laminate coating, while formaldehyde may be emitted from coatings, soft furnishings and fabrics. The National Research Council research measured over 100 volatile organic chemicals (VOCs) in indoor air, and that use of high grade materials and furnishings results in short- and long-term lower indoor air contamination.[2] As a result, the presence of other VOCs in the indoor environment, dictate a more precautionary approach to minimize VOCs in that environment.

This NOI is with regard to the development of regulations by the Minister of Health and the Minister of the Environment under CEPA, to reduce formaldehyde emissions from certain wood products produced domestically or imported into Canada. The proposed regulations are to be published in the *Canada Gazette, Part 1,* in early 2018.

The following are our comments on the proposed development of regulations.

- **Regulations versus voluntary standards or programs**

The Canadian voluntary standard (CAN/CSA-O160-16), established by the Canadian Standards Association (CSA) in 2016, regarding formaldehyde emissions from composite wood products limiting the release of formaldehyde, and promoting the use of low formaldehyde emitting products, was intended to harmonize with existing measures in California (United States), and with anticipated U.S. regulations.

We agree that there should be a regulatory approach instead of voluntary actions as this will be a more effective approach to accomplish reduction of indoor formaldehyde emissions, and specifically, emissions from composite wood products, as the majority of these products emit formaldehyde.

Recommendation:
Health Canada and Environment and Climate Change Canada should adopt a regulatory approach for the reduction of formaldehyde emissions from certain wood products produced domestically or imported into Canada.

- **Requirements (standards) for certain wood products within the proposed regulation**

The proposed regulation should include clear definitions of terms. Also, acceptable emission levels for formaldehyde (as low as reasonably achievable [ALARA]) and acceptable methods and standards to determine formaldehyde emissions from composite wood products, should be clearly articulated. Appropriate labelling

[2] National Research Council. Indoor Air Quality and Thermal Comfort in Open-Plan Offices http://www.nrc-cnrc.gc.ca/ctu-sc/ctu_sc_n64

(certification) and unique identifiers to track these products, are all essential elements of the proposed regulation.

California Air Resources Board (CARB) formaldehyde emission standards, considered progressive, could be used as a starting point for Canada's proposed regulation. Some amendments and clarifications should be incorporated so that the proposed regulation is concise and accurate as it potentially covers many products. Important considerations for the proposed regulation include:

1. Address occupational exposures of workers manufacturing composite wood products, and of workers using formaldehyde-containing materials including furniture and building construction.
2. Specify which wood products are included and excluded in the regulation (for example the status of imported laminated furniture) – many formaldehyde-releasing items are currently available;
3. Define "composite wood" and "laminated hardwood/laminated products;
4. Define what is meant by "thin", if thin MDF is included in the regulation;
5. Consider including products made using composite wood and laminated composite wood products;
6. Set standards for emissions or equivalents in an indoor environment, recognizing that within a space a number of emitting furnishings and construction materials may result in multiple exposures to formaldehyde;
7. Reference acceptable test protocols to measure formaldehyde release;
8. Recognize that formaldehyde is one (albeit potent) chemical among dozens in the indoor environment. A formaldehyde emission standard could be accompanied with a limit on total volatile organic compounds (TVOCs), and should be protective for vulnerable populations including those with chemical sensitivities;
9. Define "interior use" for products intended for interior use only; and
10. As part of a certification program, appropriate labelling for products that are covered by the regulation should be clearly stipulated. Information to track or trace the product, and indications that the product was designed for indoor use should also be included.

Recommendation:

Build the proposed regulation on the CARB model, with the above ten considerations incorporated to improve clarity and broad applicability.

- **Alternative resin systems**

Scientific information indicates that composite wood products incorporating urea-formaldehyde (UF) resins have higher formaldehyde emissions compared with other

formaldehyde resins. UF resins are generally used for indoor applications but advances in the chemistry of these resins have resulted in lower formaldehyde releases.

Other resin systems are available, such as melamine-formaldehyde and phenol-formaldehyde. Both systems emit less formaldehyde but other emissions would also have to be investigated. The higher cost of these systems could be a deterrent as a substitute for some indoor applications. Formaldehyde-free products are also available.

Recommendation:
Consideration should be given to the explicit mention of safer alternative resin systems to replace the urea-formaldehyde resin system.

- **Stockpiling of products and inventory**

Targeted products may possibly be stockpiled pending upcoming regulations. Provisions for such circumstances should be anticipated in the regulations.

As the regulation comes into force, inventory management will have to be addressed, possibly through a stipulated short phase-in period for new products. This should be clearly defined by the government, well in advance of the promulgation of the regulation.

Recommendation:

Possible "dumping," and dealing with excess inventory pre-regulation should be addressed early with manufacturers, distributers and retailers, as well as within the regulation.

Respectfully,

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