

September 17, 2003

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Re: Draft Phase One North American Regional Action Plan (NARAP) For Dioxins, Furans, and Hexachlorobenzene

Dear Dr. Wright:

The U.S. Chlorine Chemistry Council (CCC) appreciates the opportunity to review the Draft Phase One North American Regional Action Plan (NARAP) For Dioxins, Furans, and Hexachlorobenzene (HCB).

We compliment the NARAP's authors on a well prepared draft that outlines a comprehensive plan for managing dioxins, furans, and HCB in North America. The draft outlines concrete steps for enhancing efforts to manage these substances with particular attention to the needs of Mexico. The draft also appropriately recognizes the substantial progress that has been made in dealing with these substances in the U.S. and Canada.

We offer the following comments and suggestions in an effort to help clarify and strengthen the draft NARAP. CCC supports efforts to reduce dioxin emissions as part of its overall commitment to promoting the continued, responsible uses of chlorine and chlorine-based products and looks forward to working with the CEC as it seeks to implement the NARAP.

If we may provide any additional information, please contact Robert Simon, of the Chlorine Chemistry Council, at 703 741-5866 or David Fischer of the Chlorine Chemistry Council, at 703 741-5179.

Sincerely,

C.T. "Kip" Howlett, Jr.
Executive Director
Chlorine Chemistry Council

Attachment

cc: Dwain Winters, U.S. EPA

Comments on Draft Phase One North American Regional Action Plan (NARAP) For Dioxins, Furans, and Hexachlorobenzene

I. General Comments

- A. We compliment the NARAP's authors on a well prepared draft that outlines a comprehensive plan for managing dioxins, furans, and HCB in North America, while recognizing the substantial progress that has been made in dealing with the substances in the U.S. and Canada.
- B. Some of the timeframes may need to be revised to manage expectations and ensure quality work. The NARAP indicates that significant activities will be completed in 2003. Given the current status of the NARAP and in order to ensure adequate time to implement effective programs, the CEC may wish to consider revising some of the dates and time frames.
- C. Implementation of the NARAP should provide for stakeholder participation. The work of the current North American Task Force on Dioxins, Furans, and HCB provides for such stakeholder participation and involvement; and we would hope that this would apply to implementation activities as well. The Great Lakes Binational Toxics Strategy provides an excellent example of the progress that can be made through cooperative multi-stakeholder efforts.

II. Specific Comments

Note: Underlined text represents suggested additional text to the NARAP. Strikethrough text represents suggested deletions to the text of the NARAP.

Section 2.4.1 Dioxin and Dioxin-like Compounds

- In the interest of clarifying some of the information on the sources and potential health effects of dioxins and furans, we would suggest the following edits:

Suggested Edits:

- [page 3, first paragraph describing sources, after last sentence] Of increasing importance is open-burning or backyard burning. In the U.S. backyard burning represents the single largest source of dioxins. [~~While there is a general reference to municipal waste and landfill fires, this section should emphasize uncontrolled burning as a major source. It is identified in several other sections of the NARAP and should be stated here as well.~~]
- [page 4, last paragraph] . . . JECFA have also recognized dioxins as threshold carcinogens

...

Section 2.4.2 Hexachlorobenzene (HCB)

- HCB is not a solvent. This statement should be corrected. While a small amount of HCB may be formed as an unintentional by-product of some solvent production, it is not used as a solvent.

- It should be clarified that HCB was never intentionally used as an intermediate or additive in the production of PVC. This statement is inaccurate and the reference to PVC should be deleted.
- It should also be noted that none of the sources listed in the first two sentences of this paragraph are believed to be currently practiced in North America.ⁱ
- This section should note that the likely largest source of HCB is historical uses/reservoir sources primarily as a result of HCB's dispersive use as a fumigant from the 1940s to the late 1970s.ⁱⁱ

Suggested Edits:

- [page 5, second sentence] Hexachlorobenzene has been used ~~as a solvent and~~ as an intermediate and/or additive in various manufacturing processes, including the production of synthetic rubber, PVC, pyrotechnics and ammunition, dyes, and pentachlorophenol.
- [page 4, add as last sentence] The likely largest source of HCB is its historical use/reservoir sources resulting from HCB's dispersive use as a fumigant from the 1940s to the late 1970s.

Section 3.1.2 Hexachlorobenzene (HCB) – In Canada

- This section should also note that the likely largest source of HCB is that already present in the environment as a result of HCB's use as a fumigant from the 1940s to the late 1970s.ⁱⁱⁱ The section should be revised to indicate that, based on the available data, the use of chlorinated solvents should not be listed as a source of HCB.

Suggested Edits: [page 8, paragraph 2, second and third sentences] The principle sources of HCB are from HCBs historical use as a fumigant, application of . . . and other minor sources, such as cement kilns, chemical production, and the use of ferric/ferrous chloride. ~~and some chlorinated solvents.~~

Section 4.4 Pollution Prevention

- This section should emphasize coordination and utilization of the significant work that has already been developed in this area, specifically BAT/BEP as outlined under the UNECE LRTAP POPs Protocol. The emphasis should be on preventing formation and minimizing release of dioxins, furans, and HCB.

Suggested Edits: The parties will identify and promote best environmental practices and best available techniques to prevent formation and minimize releases of dioxins, furans, and hexachlorobenzene, taking into account/emphasizing those developed under the UNECE LRTAP POPs Protocol and Annex C of the Stockholm Convention on Persistent Organic Pollutants.

Section 4.4.2.1 Small-Scale & Household Waste Disposal

- It is not clear whether this necessarily includes uncontrolled burning of household waste or “backyard burning.” In the U.S. backyard burning has been identified as a major source of dioxins, furans, and possibly HCB. This is likely to be similarly true for Mexico and Canada.

- The NARAP should ensure that uncontrolled/backyard burning are included as part of this analysis, especially since this is identified as a critical source in several sections of the NARAP.
- Significant work and progress has been made in this area through the Great Lakes Binational Toxics Strategy. Efforts should be made to coordinate any work in this area with the BTS to prevent duplication and save resources. Obviously, the specific circumstances in Mexico will need to be taken into account but there are still significant efficiencies and lessons to be gained from the BTS experience.

Suggested Edits: The parties will collaborate to initiate the preparation of a publicly releasable study to identify practices and techniques to prevent formation of dioxins, furans, and HCB applicable to small-scale and household waste disposal (including open-burning), and assess their potential feasibility for remote communities and others with similar needs. This work shall take in to account the work already being done in this area by the Parties and regional inter-governmental programs such as the Great Lakes Binational Toxics Strategy.

Section 4.4.2.2 Production Processes

- The emphasis of this section should be on identification and promoting BAT/BEP for reducing releases of dioxins, furans, an HCB. There are well defined and recognized techniques/practices that several of the Parties have already adopted. As stated in earlier sections of the NARAP, these have had significant success in dramatically reducing releases of dioxins, furans, and HCB.
- Any discussion or identification of alternatives must ensure that these alternative processes are evaluated using recognized socio-economic criteria, including effectiveness, cost, impacts on environment and health, etc. In many cases alternatives may have other and even more significant environmental and health impacts than those currently in place. In other cases, implementation of BAT for an existing process could achieve a similar result with fewer resources.
- At a minimum this report should make identification of BAT/BEP as its primary focus.

Suggested Edits: In 2004, the Parties will collaborate to prepare and publicly release a report identifying production processes that ~~typically release~~ have the potential for comparatively high formation dioxins, furans, and HCB to the environment, and recognized best available techniques (BAT) and best environmental practices (BEP) for these processes alternatives to these processes and their potential feasibility (taking into account, as applicable, prevention measures referenced in Annex C, part V (A) of the Stockholm Convention). In preparing the report the Parties shall take into account BAT/BEP as defined in the LRTAP POPs Protocol and Annex C of the Stockholm Convention on Persistent Organic Pollutants.

Section 4.6.2.1 Public Information and Awareness Raising

- In many cases, existing materials have already been developed on this issue by the Parties and intergovernmental programs. The Parties should utilize this work where possible. As stated elsewhere in these comments, the materials developed for the Binational Toxics Strategy and by U.S. EPA can serve as a foundation for these information materials.
- Communication and awareness raising with industry in Mexico will be a critical component of the NARAP. This should be emphasized. In seeking to communicate and raise

awareness, the Parties and the CEC should leverage industry relationships in North America particularly on a sector basis through industry trade associations.

Suggested Edits: [Add sentence]. . . The Parties will also work to communicate and build awareness with key industry sectors, including working with industry trade associations to promote awareness and develop appropriate informational materials.

Section 5.2 Implementation Oversight Body

- The proposed North American Implementation Task Force on Dioxins, Furans, and HCB should provide for stakeholder input and participation.

Supporting References

ⁱ Bailey, R.E., 2001. Global Emissions of Hexachlorobenzene. Chemosphere. 43, 169.

ⁱⁱ Bailey, R.E., 2001. Global Emissions of Hexachlorobenzene. Chemosphere. 43, 167-182.

ⁱⁱⁱ Bailey, R.E., 2001. Global Emissions of Hexachlorobenzene. Chemosphere. 43, 167-182.