

**Terms of Reference  
for a  
North American Task Force  
to develop a North American Regional Action Plan  
on  
Lindane**

**1. Introduction**

**1.1 Background note by the CEC Secretariat**

**1.1.1 Review process for lindane**

A lindane nomination dossier was submitted on 15 January 1999, by the United States to the North American Working Group on the Sound Management of Chemicals and the CEC Secretariat for consideration under the *Process for Identifying Candidate Substances for Regional Action under the Sound Management of Chemicals Initiative*. The process was itself developed as part of the North American Sound Management of Chemicals (SMOC) initiative of the CEC Pollutants and Health Program. The SMOC initiative derives its mandate for North American collaborative work on chemical substances from CEC Council Resolution 95-05. Substances nominated under the *Process for Identifying Candidate Substances* are reviewed by the Substance Selection Task Force (SSTF), a subsidiary body of the North American Working Group on the Sound Management of Chemicals (SMOC Working Group). The review process for candidate substances consists of three stages: a Nomination Stage, an Evaluation Stage and a Discussion/Decision Document stage. The last stage includes 45-day public review of a draft Decision Document, after which the SSTF prepares a final document and recommendations regarding the need for a NARAP. The SSTF, upon completion of the review process, provides its recommendations, along with a final Decision Document, to the SMOC Working Group, which, in turn, determines, based on the information it has received from the SSTF, whether to make recommendations for collaborative trinational action to the CEC Council.

The SSTF, upon finding that lindane met the Evaluation Stage criteria, completed the Final Decision Document in September 2000, following public consultation, and transmitted the document to the chair of the SMOC Working Group on 5 July 2001, together with the task force's recommendations.

**1.1.2 Final Decision Document and SSTF recommendations**

The SSTF found that lindane is a persistent organic pollutant (POP). As of September 2000, lindane had been in continued registered use as a pesticide and insecticide in Canada, Mexico and the United States. As a pesticide with agricultural, public health, veterinary, forestry, and residential uses, lindane has provided considerable benefits in these sectors. The SSTF observed that its primary use has been in the agricultural sector—mainly for seed treatment for protection against insect pests. Lindane is also used by the veterinary and public health sectors for the treatment of head lice and scabies. The SSTF noted that lindane is one of the most abundant and pervasive organochlorine insecticide contaminants in the arctic environment. Lindane has been

shown to be transported from temperate zones where it is used, to colder northern environments, such as the Arctic. It can bioaccumulate to moderately to highly toxic levels in biota, wildlife, and humans. Toxicological data indicate lindane can adversely affect reproduction, nervous, endocrine, and immune systems, and has the potential to cause cancer in humans. Workers who use lindane to formulate lindane products for sale in North America could have the greatest potential for chronic exposure. The next greatest potential would be among those workers who are exposed on a routine basis during the use of these products. Also, exposure through the public health uses of lindane poses risks. Although the general population is widely exposed to lindane through their diet, the levels of exposure may or may not be of concern. Indigenous and northern populations who rely on subsistence foods are particularly at risk, given the evidence of high levels of lindane in their diet.

The SSTF observed that, “In each country, the public health and pesticide uses are regulated under separate authorities. Therefore, it is...recommended that if a NARAP on lindane is developed, that the Task Force include members from both the public health and pesticide regulatory agencies from each country. In addition, it is recommended members from industry, nongovernment organizations, and science communities be included on the NARAP Task Force.”

The SSTF recommended that the following elements be considered in a NARAP on lindane:

- Build upon the format/structure of completed NARAPs on chlordane, dioxins and furans, hexachlorobenzene, and the types of information that were considered in the NARAPs on chlordane and DDT.
- Country status reports, which include uses, control of imports, and regulatory jurisdictions. The Task Force observed that the purpose of status reports is to harmonize information gathered on lindane between the three countries “such as the volumes imported, annual usage, and a list of uses in the public health and insecticide/pesticide sectors.”
- Provide actions improving national capacities for adopting measures to reduce risks to human health and the environment.
- Include short-, medium- and long-term risk reduction actions consistent with regional needs and objectives.
- A strategy to address the financial commitments required by actions proposed in the NARAP.
- Actions designed to improve the assessment of risk in the three countries by:
  - Updating and completing the regulatory status and uses of lindane for Canada, Mexico, and the United States;
  - Developing a strategy to estimate human and environmental exposures and risks in Mexico; and
  - Sharing expertise and knowledge on analytical capacities among the three countries.
- Actions designed to analyze and implement risk reduction measures by:
  - Identifying alternatives that have been used in various agricultural sectors to reduce releases of lindane, including reviewing the cost of potential health effects of alternatives;
  - Ensuring that information on analysis and implementation of risk reduction measures is shared among the three parties; and
  - Based on this review and analysis, developing and implementing measures to reduce risks to human health and the environment, including exploring the effectiveness of voluntary approaches relative to other policy instruments.
- Actions designed to determine the success of the NARAP, such as:
  - whether or not lindane is still registered for use in the countries;
  - the number of products or uses permitted; and

- the levels of imports into the three countries.

### 1.1.3 SSTF observations in its letter of transmittal to the SMOC Working Group

The SSTF made the following comments in its July 2001 letter of transmittal recommending development of a NARAP on lindane:

The SSTF members wish to emphasize that mutual concern has been reached not just for lindane, *but for the other HCH isomers as well*. The Task Force strongly recommends that comments made to the Task Force by stakeholders and government reviewers from Canada, Mexico and the US be taken up during the development of a NARAP, if the Council decision is to proceed with one. [*emphasis added*]

The SSTF members share specific concerns about the extent to which lindane in public health products has implications for human exposure and environmental effects. Therefore, it will be important to coordinate activities with the public health sector in all three countries.

The members are uncertain about the reliability and accuracy of the existing North American inventories of lindane products that remain in circulation; the uncertainty applies to both the nature of products that contain hexachlorocyclohexanes (HCH) and the extent to which the products remain available. For example, the Decision Document notes that Mexico's annual use of alpha-HCH grew from 105 tonnes/yr in 1980 to 1218 t/yr in 1990, while its use of gamma-HCH increased from 23t/yr in 1980 to 261 t/yr in 1990 (DeMarch, et al.,1998). This would indicate that the use of alpha-HCH is five times greater than that of gamma-HCH in Mexico, while neither Canada nor the United States used alpha during 1980 or 1990. Mexico's capacity to change is illustrated by their reduction in the use of certain POPs such as its annual use of alpha-HCH from 1,218 tonnes in 1990 to zero use since 1995 (Li, Yi-Fan Sept 1999, personal communication) Of all isomers, alpha-HCH is the most prevalent HCH found in the Canadian Arctic. The commenters noted other examples of uncertainty that should be addressed in any future action undertaken on lindane, including the extent of product reserves that are still in use in Canada.

### 1.1.4 CEC Council Resolution 02-07

The CEC Council made note in its preamble statement of the Resolution that children are placed at increased risk through the direct application of lindane-containing products utilized for head lice and scabies control when less toxic alternatives exist; that drinking water quality and aquatic organisms are placed at increased risk from the direct disposal of lice and scabies treatment products into sewer systems that cannot cost effectively remove lindane before discharging to receiving streams; and that efforts to reduce or eliminate uses of lindane in North America will reduce risks of exposure to specific sub-populations (i.e., workers who use lindane, northern indigenous populations, pregnant women, and children), contribute to lower levels of lindane in the ambient environment, and ideally, reduce costs associated with human health care. The Council further recalled that lindane is a Level II substance scheduled for virtual elimination in the *Canada-United States Strategy for the Virtual Elimination of Persistent Toxic Substances in the Great Lakes* and is included in the Annex II list of persistent organic pollutants ("Substances Scheduled for Restrictions on Use") identified in the 1998 *Aarhus Protocol on Persistent Organic Pollutants* of the United Nations Economic Commission for Europe, which extended the 1979 *Geneva Convention on Long-range Transboundary Air Pollution*.

The Council instructed the SMOC Working Group, in its development of a North American Regional Action Plan, to take into account the comments of the SSTF in its letter of transmittal of 5 July 2001, with

respect to the need to improve inventories (for both the alpha- and gamma-isomers of hexachlorocyclohexane (HCCH), and as regards the nature of products and the extent to which they remain available, for example, via public health, veterinary, agricultural, and residential uses), and taking into account releases to all environmental media.

The Council further instructed the SMOC to take into account comments received from the public during the course of the period for public review and comment on the decision document meaningful approaches to participation from the public, technical, and policy experts in developing the NARAP, “in particular, giving consideration to the public health sector, children’s health professionals, and aboriginal people.”

Having noted that the US Environmental Protection Agency and the Pest Management Regulatory Agency (PMRA) of Health Canada have recently cooperated on a review of the available scientific data regarding lindane under the North American Free Trade Agreement Technical Working Group on Pesticides, the Council further instructed the SMOC Working Group to consider any relevant information emanating from North American and international reviews of these substances that are currently underway, while recognizing that such reviews should not delay action within North America.

## **2. Task Force authorization**

The North American Task Force on Lindane, hereinafter referred to as the Task Force, is established by the North American Working Group for the Sound Management of Chemicals, hereinafter referred to as the SMOC Working Group, to assist the SMOC Working Group in the implementation of Council Resolution 02-07, dated 19 June 2002, on “Developing a North American Regional Action Plan (NARAP) on Lindane.”

## **3. Terms of reference for the Task Force**

### **3.1 Operational parameters**

It is proposed that the following operational parameters apply to the Task Force:

- (a) The Task Force shall be composed of two regular members to be appointed by each of the three countries, and one alternate. Each member shall bring a profile of expertise based on a history of responsibilities and experience pertaining to lindane, with representation of federal environmental and health concerns to be assured, either through Task Force membership or through *ad hoc* involvement of experts from the appropriate federal agencies [note: the Task Force may be expanded to include representation from federal public health agencies].
- (b) The Task Force shall include four participating observer-members to be selected by consensus of the regular members, one each from the public health care sector (with expertise in children’s health and toxics); the environmental community; indigenous organizations; and industry. Nominations will be sought from these interest groups although government members reserve the right as to the final selection of observer-members;
- (c) The Task Force shall be chaired by a chairperson, to be selected by consensus of the Task Force from among the government membership;
- (d) The Task Force shall be assisted by the Secretariat of the Commission in carrying out its work;
- (e) Decision-making shall be by government members, with decisions taken by consensus.
- (f) Government Task Force members throughout the NARAP development process shall be expected to maintain close communication with other experts and officials within their respective jurisdictions, with appropriate international scientific and technical associations engaged in matters pertinent to the work of the Task Force;
- (g) Observer members are at liberty and encouraged throughout the NARAP development process to consult with their constituencies generally so as to convey advice to the Task Force regarding NARAP principles, goals, objectives, and desired actions, etc., that these constituencies would

like to see reflected in the final NARAP document. Observer members are further encouraged to consult, as feasible, and, as regards NGO and indigenous groups, with support from the Secretariat such as can be provided, with their broader North American constituencies, as well as the particular organization that they represent.

- (h) The Task Force chair shall be an *ex officio* member of the Environmental Monitoring and Assessment Standing Committee as per the provision to this effect in Action Item 1 of the *North American Regional Action Plan on Environmental Monitoring and Assessment*.
- (i) The Task Force shall encourage observation from and maintenance of close linkages with the CEC's Children's Health and the Environment, Pollution Prevention, Pollutant Release and Transfer Register, and Enforcement Working Groups, so as to keep them apprised of pertinent issues and take advantage of potential linkages.
- (j) The Task Force shall consult broadly with technical, public and policy experts at both developmental and review stages of the NARAP.
- (k) The Task Force, via the Task Force chair or the chair's delegated representative, shall report to the SMOC Working Group (i.e., during its teleconferences and meetings, and as the task force contact point for task force communications to the SMOC Working Group).

### **3.2 Mandate of the Task Force**

It is proposed the Task Force mandate be as follows.

- (b) The Task Force shall develop, on behalf of the SMOC Working Group, and with the assistance and support of the Secretariat of the Commission for Environmental Cooperation, a North American Regional Action Plan (NARAP) on lindane that promotes the reduction and/or elimination of risks to human health and the environment, in support of the Sound Management of Chemicals (SMOC) initiative. In its development of the NARAP, the Task Force shall take into consideration the terms of Resolution 02-07, the SSTF 2001 letter of transmittal, and the recommendations of the Substance Selection Task Force as conveyed in the Final Decision Document provided to the SMOC Working Group regarding development of a NARAP.
- (c) The Task Force shall give priority to pollution prevention and capacity building measures, especially with respect to protection of children, workers, indigenous communities, those who may be exposed as a result of "legacy" issues, and other groups for whom data indicate potentially higher risk of exposure than for the general population; and prevention of lindane releases to ecosystems from North American sources. To this effect, the Task Force shall include, but not be limited to, measures that apply to the following for inclusion within the NARAP:
  1. development of a North American inventory that provides information on importation, export, annual usage, and listed uses in the public health and insecticide and pesticide sectors, taking into account major source categories, major individual sources, and stocks;
  2. recommendations for collection, storage and disposal of stocks in an environmentally sound manner as a means of preventing illegal exports arising from stocks;
  3. consideration of proposed measures that each country can take domestically to prevent export of lindane outside of North America for uses no longer permitted within North America, including consideration of model legislation to this effect;
  4. consideration of sources of lindane from outside of North America, including the effects from long-range transport, recognizing that the Arctic is significantly affected by lindane;
  5. recommendations for improving the capacity of North American countries to monitor, research and share information on lindane, taking into account opportunities to coordinate such recommendations with those of the NARAP on environmental monitoring and assessment to reduce exposure of humans, especially children, to lindane, considering exposure through breast milk, and with respect to assessing and preventing environmental contamination;
  6. a review of the efficacy of lindane, especially its pharmaceutical uses;

7. development of an effective and expedient outreach strategy for communicating concerns and measures that can be taken to reduce risk of exposure to lindane, with such strategy to include proposed outreach at both trinationl and domestic levels to pediatricians and pharmacists; veterinarian associations; school boards; manufacturers of lindane-containing products; groups for whom monitoring indicates exposure concerns; and other pertinent target groups within North American communities;
8. identification and recommendation of measures for improving capacity and capabilities of the three Parties for the environmentally sound management of processes and products that generate lindane, including as they apply to the manufacture, phase-out, handling and disposal of products and wastes containing lindane, collection and destruction of stocks;
9. identification, development, and use of suitable alternatives, especially as regards to products used to treat head lice and scabies in children;
10. with regard to the different pollution prevention and capacity-building concerns, the NARAP will identify practical opportunities for cooperation, and sharing expertise, experience and technology on lindane in a manner that encourages complementary national approaches for assessing and addressing these substances;
11. provisions for reporting to the CEC Council on implementation as regards to achievement of/making progress on NARAP objectives, in particular, as regards to reduction of exposure of humans and the environment to lindane.

### **3.3. Work Plan of the Task Force**

The Task Force shall endeavor to produce a final NARAP for SMOC approval by May 2005. The following work plan timetable is suggested, recognizing that dates may require adjustment:

- (a) by the fall of 2003, prepare an annotated outline of the NARAP on lindane for approval by the Working Group;
- (b) by or before October 2003, hold a consultation meeting with the North American public, in Mexico, including stakeholders with particular expertise on lindane, on the NARAP under task force development;
- (c) by March 2004, hold a second consultation meeting with the North American public, in the Arctic region, including stakeholders with particular expertise on lindane, on the NARAP under task force development;
- (d) by fall 2004, complete a government and SMOC Working Group consultation on a NARAP draft in which the Task Force has taken into account comments received during the initial public consultation meetings on the NARAP;
- (e) by February 2005, present the SMOC Working Group with a public consultation draft of the NARAP;
- (f) by April 2005, have concluded a broad consultation with the North American public on a draft NARAP ;
- (g) by or before May 2005, provide a final draft of the NARAP to the SMOC Working Group for its approval with the objective that it can be approved by the Council at its June 2005 meeting and subsequently be implemented.

### **3.4 Task Force administration and accountability**

- (a) Unless otherwise agreed, and subject to the availability of resources, the Commission shall cover the incremental costs of implementing the Task Force Terms of Reference, according to the ordinary administrative rules and procedures of the Commission pertaining to such matters. The Task Force is nonetheless encouraged to seek other funding contributions, such as from agencies of the Parties, private foundations, and industrial associations.
- (b) The Secretariat of the Commission shall provide reasonable technical, administrative and operational support to the Task Force, according to provisions made in the annual programs and budgets of the Commission and as approved by the Council.

- (c) The SMOC Working Group may review the operation and effectiveness of the Task Force at any time and revise the Terms of Reference and the duration of the Task Force at any time.