

June 19, 2000

Dr. Andrew Hamilton
Commission for Environmental Cooperation
393, rue St Jacques Ouest, Bureau 200
Montréal (Québec) Canada, H2Y 1N9

Dear Dr. Hamilton:

Decision Document on Lindane

The Sanitation Districts of Los Angeles County (Sanitation Districts) appreciate the opportunity to comment on the Decision Document on Lindane Under the Process for Identifying Candidate Substances for Regional Action under the Sound Management of Chemicals Initiative (Decision Document). We strongly support the Decision Document's recommendation to develop a North American Regional Action Plan (NARAP) for lindane but believe that more emphasis must be placed on reduction or elimination of public health uses of lindane. These positions are detailed below, along with specific comments on the Decision Document.

As background, the Sanitation Districts provide sanitary sewerage services to over 5 million residents, numerous commercial businesses, and over 3000 industrial facilities within Los Angeles County, California in the United States of America. We operate 11 wastewater treatment plants, including 10 that treat wastewater to a superior quality suitable for reuse. Over 190 million gallons per day of recycled water are produced at these plants with over 77 million gallons per day used for applications including groundwater recharge, landscape irrigation, and industrial uses. The water that is not reused is discharged to surface waters that have beneficial uses including municipal drinking water supply, water recreation, aquatic and wildlife habitat, and commercial and sport fishing.

The Sanitation Districts are concerned about lindane because excessive quantities of lindane are arriving in our sewerage system. We must meet a stringent limit of 19 parts per trillion (0.019 µg/L) in wastewater discharged from our treatment plants that goes to fresh water bodies. Current discharge levels are 30 to 40 parts per trillion. Studies have shown that essentially all of the lindane arriving in our system is coming from public health uses of lindane; that is the treatment of head lice and scabies with lindane shampoos and creams. These shampoos and creams are rinsed off after use and enter public wastewater collection and treatment systems. Even after treatment at wastewater facilities, lindane persists and passes into creeks, rivers, lakes, and oceans. Each lindane treatment for head lice or scabies can contaminate 6 million gallons of wastewater to the 19 part per trillion limit.

Other potential sources of lindane contamination in water have been investigated in our system and found to be minor relative to head lice and scabies treatment. Very small amounts of lindane arrive in sewers from human ingestion of produce containing lindane residues. Veterinary products are not considered to be a source inasmuch as lindane-containing products for use on animals have not been sold in California for several years. Agricultural, structural, and landscaping applications of lindane may only be made by certified pesticide applicators in California. Even if small amounts of residue from these application make their way to our sewers, the amounts are dwarfed by public health loadings. For example, in 1997 only 4.7

pounds of lindane were used for all non-public health purposes in Los Angeles County. During the same period 200 pounds of lindane arrived at treatment plants in this county.

Because of this need to reduce lindane loadings in our system, the Sanitation Districts strongly support the development of the NARAP. However, because essentially all of our lindane loading is coming from public health uses, we believe that public health uses of lindane should be given significant consideration in the NARAP. Specific comments on the Decision Document follow.

1. (Page 1) The Executive Summary contains the statement, "[Lindane] is used in the agricultural sector mainly for seed treatment for protection against insect pests, with minor uses by the veterinary and public health sectors." Public health sales may be minor relative to total sales, but they represent a high source of human exposure since the lindane is applied directly to human bodies. They also represent a high degree of environmental exposure since the lindane from these uses is rinsed into sewer systems where most of it makes its way into creeks, rivers, lakes, and oceans. Public health uses must not be considered as minor when the NARAP is developed.
2. (Page 8) Regarding routes of human exposure to lindane the Decision Document states, "Like other organochlorines, the most wide-spread exposure to lindane by the general public is through food." Although food exposure may be the most wide-spread exposure, it may not be the most significant. Lindane in food causes very low levels of exposure while head lice and scabies treatments cause very high levels of exposure in the people who are treated. This is exacerbated because lindane is readily absorbed through the skin to which it is applied.
3. (Page 8) Also regarding human exposure the Decision Document states, "Another potential route of exposure to lindane by the public includes the use of lindane to treat external parasites such as lice and scabies. In the USA, approximately 2 % of families use lindane pesticides." Direct dermal exposure of one in fifty families in the United States should not be considered a minor source of exposure.
4. (Page 14) Section 3.2.3 states that a NARAP would promote sound lindane management practices by, among other things, "Focusing efforts on uses of lindane that contribute to atmospheric transport." The Sanitation Districts find this statement far too narrow. We hope that a NARAP would also focus on reducing human exposure and water quality exceedances caused by lindane.
5. (Page 15) The discussion in Section 3.4 on feasibility and availability of alternatives to lindane does not mention public health alternatives. Products that are less toxic and at least as effective as lindane exist for the treatment of both lice and scabies. For lice, there are products based on permethrin, pyrethrins, and malathion. For scabies there are products based on permethrin and crotamiton. These alternative products are readily available and widely used.
6. (Page 16) Section 3.5.2, on societal capacity for change regarding lindane in the United States, does not mention public health uses of lindane. Such uses must be addressed in this section.

7. (Page 18) The Decision Document states, "Lindane is a Level II substance in the Canada-United States strategy for the Virtual Elimination of Persistent Toxic Substances in the Great Lakes. The United States and Canada are committed to making their best efforts to reduce Level II substances." These best efforts must include a thorough examination of the risks and benefits of public health uses of lindane.
8. (Page 19) The chief recommendation of the Decision Document is that a NARAP be prepared for lindane under the Sound Management of Chemicals Program Initiative. The Sanitation Districts strongly support this recommendation.
9. (Page 20) The Decision Document states, "In each country, the public health and insecticide and pesticide uses are regulated under separate authorities. Therefore, it is also recommended that if a NARAP on lindane is developed, that the Task Force include members from both the public health and pesticide and insecticide regulatory agencies from each county." This step is essential. Public health authorities, particularly in the United States, do not adequately address the environmental impacts of lindane. Alternatively, the insecticide regulatory authorities can be given joint control over public health uses so that environmental impacts can be properly addressed.
10. (Page 20-21) The list of elements to be considered in a NARAP on lindane does not include any specific recommendations regarding public health uses of lindane. We request that the first bullet item under Recommendation Number 7 be amended to read, "Identifying alternatives that have been used in various agricultural and public health sectors to reduce releases of lindane, including a review of the cost and potential health effects of alternatives."

In summary, the Sanitation Districts support the recommendation to develop a NARAP for lindane, but we request that a greater emphasis be placed on public health uses of this pesticide. Thank you for your consideration of our comments. If you have any questions or would like additional information, please contact Ann Heil of the Sanitation Districts' Industrial Waste Section by phone at 562/699-7411, x2950 or by e-mail at aheil@lacsdsd.org.

Very truly yours,

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