

By Carolyn Raffensperger

## Dioxin Danger Passed From Father To Son

**F**rom his father's administration, President Bush has inherited the challenge of dealing with dioxin — which is perhaps appropriate because of that toxic chemical's still un-addressed impact on future generations. A new EPA assessment highlighting the dangers of dioxin and a new international treaty offer Bush an opportunity to make progress in reducing its impact on future presidents and planetary residents alike.

An unwanted by-product of industrial processes like paper bleaching, waste incineration, and the manufacture of pesticides, plastics, and solvents, dioxin is a toxic chemical that appears to have other, more pernicious effects, such as carcinogenicity, endocrine disruption, and persistence in body tissues and the environment.

It was during the administration of the first President Bush when EPA Administrator William Riley began a reassessment of dioxin to better characterize its dangers. The agency felt that the risks to human health and the environment were not well understood, and there was a vociferous debate about its sources and its harms. A first draft reassessment was presented to the agency's Science Advisory Board in 1994, but the SAB sent it back for more work. Last November, the SAB reviewed the latest draft much more favorably. Although it will still be some time before the reassessment is completed, its interim finding that the danger to humans is ten times worse than thought appears to be on target.

The SAB will release its comments on the current draft in April. At about

the same time, EPA will release a Cross-Media Dioxin Strategy to redirect agency activities to take the reassessment into account. The strategy will apparently treat dioxins as cross-media pollutants rather than on an individual EPA program basis. This is consistent with the decision to develop an agency-wide dioxin strategy made a decade ago by Riley.

The Department of Health and Human Services is also concerned about the health hazards of dioxin. In January, its National Toxicology Program officially upgraded dioxin from the category of "reasonably anticipated to be a human carcinogen" to "known human carcinogen."

This scientific determination was delayed by a legal challenge from Jim Tozzi, president of Multinational Business Services, Inc., and other business interests. Tozzi claimed that NTP had not followed its own criteria for revising its listing as a carcinogen. In September, a federal district court ruled in favor of the program, stating that its approach was reasonable. Tozzi appealed the ruling, also asking the U.S. Court of Appeals for the District of Columbia to grant an injunction to halt publication of the revised dioxin listing. The injunction was denied, but the case has not yet been heard.

Outside the United States, the world is moving forward on eliminating dioxin and other "persistent organic pollutants." POPs are compounds that accumulate in the body, don't break down in nature, and spread throughout the biosphere to all regions of the globe, and especially into the Arctic. In 1998, the World Health Organization was able to say definitively that there are important consequences for human health: "Subtle effects may already occur in the general population in developed countries at current background levels."

In December, negotiations were concluded on the Treaty on Persistent Organic Pollutants. The treaty includes dioxin and furans, which are both industrial by-products, plus 10 "intentional" persistent, bioaccumulative chemicals — those that are manufactured for commercial purpose: aldrin, chlordane, DDT, dieldrin,

endrin, heptachlor, mirex, toxaphene, PCBs, and hexachlorobenzene.

The treaty requires the parties to take measures to reduce the "total releases" from "anthropogenic sources" of these substances "with the goal of their continuing minimization and, where feasible, ultimate elimination." The treaty will be formally signed in Stockholm in May and will go into force when at least 50 nations have ratified it.

We've learned important lessons from dioxin through its crucial role in environmental history, beginning with Love Canal and Lois Gibbs's extraordinary efforts to protect her community. We know that dioxin may be the worst example to date of the fact that controlling pollution at the end of the pipeline is the wrong approach; if we want to get rid of dioxin, chlorinated compounds need to be eliminated from the manufacturing process. We know that its effects may be determined more by timing than by levels of exposure because the developing organism, whether it is a bird or human baby, is uniquely susceptible to the deleterious effects of dioxin and other POPs. But despite the fact that EPA's decade-long study on the effects of dioxin is still in progress and industry claims that the "numbers" are not final, we do know that dioxin does cause significant harm.

The POPs treaty counters industry's interest in more study by affirming the precautionary principle. The treaty objective states: "Mindful of the precautionary approach as set forth in Principle 15 of the Rio Declaration on Environment and Development, the objective of this convention is to protect human health and the environment from persistent organic pollutants."

President Bush has an opportunity to do the right thing. He can resist industry efforts to further delay release of the dioxin reassessment and the strategy. He can also lead the effort to ratify and implement the POPs treaty. This problem should not persist for another decade.

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