



Minister
Environment Canada

Ministre
Environnement Canada

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Release

This information was released to the wire services on the date indicated. Despite the delay, some releases and speeches are mailed to out of town media because the content is not time dependent or because it will be useful for background files.

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For release: IMMEDIATE

NEW FEDERAL REPORT ON THE STATUS OF DIOXINS RELEASED BY CACCIA

OTTAWA -- Federal Environment Minister Charles Caccia, in commenting on a new federal government report on dioxins, said today that even though the significance of low levels of dioxin found in the Canadian environment is not fully understood, the federal government is taking steps to minimize any exposure to these chemicals.

"This approach", said Mr. Caccia, "is the only prudent course of action for governments at the present time. We must attempt to ensure that these levels get no higher and in fact are reduced. To accomplish this we must decrease the input of chemicals into the environment through the better management of chemicals."

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The report, Dioxins in Canada: The Federal Approach, represents a coordinated federal approach to the problem of dioxins and was prepared by representatives from the departments of the Environment, Agriculture, National Health and Welfare and Fisheries and Oceans. It outlines the potential problems with dioxins in Canada and the actions being taken by the federal government in collaboration with the provinces to reduce them.

Dioxins have been identified as the most toxic man-made substances known. They are not chemicals that have been intentionally manufactured or have any specific use, and are the by-products formed during the production or combustion of other organic chemicals.

Mr. Caccia also indicated that the dioxin situation in the Canadian environment is not as serious as in the United States. "We do not have problems of the same magnitude and type here in Canada", said Mr. Caccia.

The Minister explained that the federal approach outlined in the report for dealing with chemicals such as dioxins is based on a series of sound chemical management principles and practices used to minimize environmental impacts.

"The concept of the better management of chemicals must be founded on a greater understanding by all sectors of society of the benefits and risks of chemical use and of the various choices and alternatives available to governments, industry and consumers. Based on a clearer understanding of the responsibilities we all have in dealing with the problem, we can act to avoid the adverse impacts of chemicals, now and in the future," said Mr. Caccia.

Mr. Caccia indicated that coordinated federal activities in better chemical management are underway in the following areas:

- the monitoring of chemical manufacturing operations to ensure that no environmental contamination results from the disposal of wastes containing dioxin. The federal approach has been to examine the life-cycle of chemicals that contain dioxin, predict the potential entry pathways for dioxins into the environment and to take effective action to control these entries;
- the safe packaging, handling and transportation of dioxin containing chemicals in Canada;
- examination of registration and use of all dioxin containing chemicals;
- studies and further information gathering into combustion as a source of dioxins to the environment;
- continued monitoring activities in regards to human health, drinking water in Ontario, and selected commercial fish species from certain of the Great Lakes;
- further research into dioxins to identify areas where more controls are needed.

Mr. Caccia confirmed that the better management of chemicals is a top priority for Environment Canada. "This report, prepared by four federal government departments re-affirms not only my concern but that of the federal government in meeting this issue head-on", said the Minister.

[Copies of the report are available from the Environmental Protection Service of Environment Canada, Ottawa, Ontario.
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Two years ago an independent advisory committee was established by the ministers of the Environment and National Health and Welfare to provide advice on the sources, pathways, exposures, toxicity and risks of dioxins. The report of the committee was released earlier today. Mr. Caccia acknowledged the work done by the committee and said the recommendations will provide additional guidance for further actions by the federal government.

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DIOXINS FACT SHEET

Dioxins have become practically a household name in Canada. Wide press coverage regularly highlights the adverse effects of these chemicals. Many of the stories deal with the spraying of Agent Orange in Vietnam, or industrial explosions as in Seveso, Italy, or leaking dumps in the United States. There is, however, a great deal of confusion among Canadians on how dioxins affect them and what they can do about the problem. The major Canadian concerns are the health effects of dioxins and the impact that dioxins may have on wildlife and fish. There are, however, more questions which need to be answered to better understand the dioxins story in the Canadian context.

What are dioxins?

Dioxins are widely recognized as being extremely dangerous chemicals. The best known member of this chemical class is 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) which has been described as one of the most toxic chemicals known to man. The other 74 members of the dioxins family have a varying range of toxicity, some of which are also very toxic.

Where do dioxins come from?

Dioxins are not chemicals that are intentionally manufactured or for which there is any use. They are by-products formed during the production of other chemicals or during combustion processes.

CHEMICALS CONTAINING DIOXINS

2,4,5-trichlorophenol contains 2,3,7,8-TCDD and has been involved in a number of industrial explosions and accidents which have

resulted in local exposure to high levels of this dioxin (eg. Seveso, Italy, and other incidents in Europe, and the U.S.A.). There have also been problems with the disposal of waste generated by the manufacture of 2,4,5-trichlorophenol (eg. Love Canal, New York; Times Beach, Missouri). The major problems with 2,4,5-trichlorophenol are clearly associated with its manufacture. Fortunately, this chemical has never been manufactured in Canada.

The chemical 2,4,5-T is a herbicide containing 2,3,7,8-TCDD. It is registered for specific forestry uses and along rights of way such as hydro transmission lines, in Canada, and is used under provincial authority. Under the Pest Control Products Act, the 2,3,7,8-TCDD content is regulated at a maximum of 100 parts per billion although monitoring of samples shows that the usual content is less than 10 parts per billion.

On the other hand, 2,4-D is a herbicide used extensively in the prairie provinces on cereal grains to control broadleaf weeds (about 4.5 million kg per year). It contains various dioxins, but not 2,3,7,8-TCDD. Regulations on 2,4-D allow no more than 10 parts per billion of any dioxin. Recent monitoring has indicated that most 2,4-D products are below this level.

Another group of chemicals, such as pentachlorophenol and tetrachlorophenol, were once manufactured in Canada and are still used as wood preservatives (about 3 million kg per year). They are not contaminated with 2,3,7,8-TCDD but contain other quite toxic dioxins at the parts per million level. Investigations are underway to control the dioxin content of pentachlorophenol and tetrachlorophenol.

Other chemicals, such as triclosan and hexachlorophene, minor ingredients in some health care products, are known to contain dioxins.

WASTE DUMPS

These can be sources of dioxins, particularly those associated with the disposal of wastes from 2,4,5-trichlorophenol manufacture. The identified Canadian area of greatest concern is Lake Ontario where dioxins enter the Niagara River from U.S. landfills. A joint Canada/United States/Ontario/New York State program for investigating and controlling this problem is underway. Considerable concern has been raised about the possible extent of dioxin-containing wastes that may have been put into landfills in Canada and which may be escaping into drinking water. This is presently under investigation.

COMBUSTION

Incineration, particularly of municipal garbage and industrial waste, produces trace quantities of dioxins if the combustion temperature is not high enough for complete burning. Other potential combustion sources may be such things as automobile exhaust or cigarette smoke. It has been suggested that forest fires are a natural source of dioxins.

What are the effects of dioxins?

The precise long-term effects of dioxins on humans and on the environment are not known. Dioxins and in particular 2,3,7,8-TCDD have been shown to be extremely toxic to laboratory animals and some adverse effects have been observed in wildlife and fish. Humans exposed to moderate levels develop a skin condition known as chloracne and, occasionally, some nervous disorders. There is no scientific agreement that exposure to continuous low doses of dioxins causes cancer in humans. Nevertheless, the possibility cannot be overlooked. Dioxins have been measured in the environment and in some humans,

suggesting that there is widespread exposure. People particularly exposed are workers using dioxin-containing chemicals. In addition, people who live in urban areas, people who eat large quantities of large salmonids from Lake Ontario in excess of the consumption guideline and smokers are probably more exposed than the rest of the population. The consensus seems to be that long-term exposure to any level of dioxins is a cause for alarm. Therefore, the entry of dioxins into the environment must be prevented.

How do we control the entry of dioxins into the environment?

In the long term, the solution to reducing the problems caused by toxic chemicals lies in better management of activities that involve chemicals. Society is striving for a better environmental quality and desirable standards of living. In order to adequately achieve both these goals, choices must be made. Most chemicals have benefits as well as risks, and, although dioxins provide no benefits, the chemicals which they contaminate are very useful. The federal government's approach to the dioxins problem has been to examine the life-cycle of dioxin-containing chemicals, predict where dioxins may enter the environment, and control those entry sites.

Control is achieved by:

- restricting the uses of dioxin-containing chemicals;
- regulating the dioxin content of dioxin-containing chemicals (purity should improve as technology develops);
- utilizing Codes of Good Practice for industries using dioxin-containing chemicals;
- preventing or reducing dioxin emissions from combustion sources;

- using more adequate disposal methods for dioxin-contaminated waste.

How can I limit my exposure to dioxins?

Government programs have been carefully tailored to prevent the entry of dioxins into the environment; however, there are actions which individuals can take to reduce their exposure.

Avoid using dioxin-containing chemicals, or if I must use them, exercise great care not to get any in contact with my skin.

Limit my intake of large salmonids from Lake Ontario.

Do not smoke.

