9/12/03

Doug Wright
Director of Programs
Commission for Environmental Cooperation
393 St-Jacques West, Suite 200
Montreal, Quebec, Canada H2Y 1N9

Re: Comments upon the draft Phase One North American Regional Action Plan on Dioxins, Furans and Hexachlorobenzene

Dear Sirs:

By this letter Cancer Action NY makes comment upon the draft Phase One North American Regional Action Plan on Dioxins, Furans and Hexachlorobenzene. Elimination efforts need to be focused upon at least five categories of dioxin, furan and hexachlorobenzene (DFH) pollutant creation and release to the environment: incineration, open waste burning, metals refining, poorly characterized or unrecognized sources, and PVC phase-out.

I. Incineration

All forms of incineration, including, municipal solid waste incineration, medical waste incineration, hazardous waste incineration and sewage sludge incineration must be phased-out. The creation of DFH continues to be a serious problem for these industries despite regulatory efforts to require use of advanced technologies for emission abatement. DFH pollutants, which are captured by air pollution control technologies and then placed in landfills, represent an unacceptable source of degradation of environmental quality. This is because landfills are part of the environment and cannot be isolated from the water, air and soil, which support life on the Earth.

II. Open Waste Burning

This Plan contains no admission of the fact that open waste burning is a widespread practice in both the United States and Canada. Furthermore, no specific actions are proposed for eliminating open waste burning in North America. The proposed study of methods whereby open waste burning can be carried out in such a way as to minimize creation of DFH falls far short of a reasonable effort to eliminate these pollutants.

Open waste burning is a totally out of control activity in North America. Even in areas such as New York State where infrastructure for non-combustion disposal alternatives is well developed, open waste burning is heavily practiced in rural and agricultural communities. This burning often takes place in close proximity to the lands utilized for production of forage crops and pasture. Contamination of animal fat foods produced in such situations is especially problematic due to the direct and short pathway between pollutant release and intake by the food animals.

New York State counties, including: Lewis, Jefferson, St. Lawrence, Franklin, and Clinton, comprise a vast milk production area. Across the Canadian border, the counties of: Leeds, Grenville, Dundas, Stormont, and Glengarry in the Province of Ontario, further expand this region of dairy farming (Latitude: 43 degrees, 30 minutes North to 45 degrees, 30 minutes North; Longitude: 74 degrees, 30 minutes West to 76 degrees, 15 minutes West). Five hundred million pounds of liquid milk are shipped each year from St. Lawrence County alone to the New York metropolitan area.

Open waste burning activity has been most carefully evaluated for St. Lawrence County, New York. Backyard barrel and agribusiness refuse heap burning are heavy local sources of DFH releases. A survey of open waste burning, conducted by the St. Lawrence County Planning Office in 1993, estimated a minimum of 10,000 burn barrels for the County. A high percentage of the 1000-plus farms burn waste plastics, rubber, foam rubber, pressure treated lumber, metal foils and paper in on-farm refuse heaps. From 1993 until approximately the end of the decade, the number of residents who utilized burning barrels had been increasing. During the last few years, there appears to have been some reduction in the amount of open burning taking place, but it is our opinion that this has not yet caused the problem to diminish in magnitude to the extent that the 1993 levels would be an overestimate of current burning. A recent study by the County's Planning Office confirms this conclusion.

The 1997 US EPA report, "Evaluation of Emissions from the Open Burning of Household Waste in Barrels", provided a quantification of pollutant releases.[1] The author indicates that burning the residential waste (paper, plastics, rubber, foam rubber and metal foils) of 1.5 families in barrels can release an amount of dioxins into the environment equal to that released by a municipal solid waste incinerator burning 200 tons per day. In follow-up test burns, the Agency has determined that open waste burning creates and releases dioxins over a considerable range of values due to the highly complex nature of combustion.[2]

Cancer Action NY has observed that several DFH exposure associated cancers exist at elevated levels in the northern counties of New York State. It is likely that open waste burning releases of persistent organochloride pollutants are a source of exposure, which contributes to the incidence of lung cancer, breast cancer, prostate cancer and colorectal cancer in this region.

III. Metals Refining

Aluminum reduction facilities, nickel refining facilities and iron ore scintering facilities are significant sources of DFH creation and release in North America. These sources impose a large local and regional impact. Their contribution to DFH levels in wildlife and fish is an especially serious threat to the health of native and subsistence users of these foods.

The release of fluorinated dioxins, furans and benzenes is of great magnitude in the production of aluminum, due to the presence of fluoride ion in the emissions of this industry. No data is collected upon emission levels for these compounds. When all halogenated dioxins, furans and benzenes are taken into account, aluminum production rises in the ranking of sources.

Efforts to reduce the DFH creation and release, which takes place at metals refining facilities, must be aggressively pursued. Inert anode technology (IAT) should be utilized in the electrochemical processing of bauxite ore to greatly reduce creation of DFH. IAT should be considered to be the Maximum Available Control Technology (MACT) for the aluminum industry sector. Therefore, its use should be required pursuant to the Clean Air Act.

IV. Poorly Characterized or Unrecognized Sources

Industrial facilities in North America utilize heat in the presence of organic materials, metals and halogens in a great number of complex and varied processes. DFH creation and release is a probable feature of such activity. Governmental actions need to be taken, which will quantify the creation and release of DFH at these sources.

V. Phase-Out of PVC Manufacturing and Use

Polyvinylchloride plastic manufacturing is a source of dioxins and furans. Sludge accumulating from processes utilized in the manufacture of this material is contaminated with these chemical compounds. Presence of PVC fuel in open waste fires results in especially high yields of dioxins and furans (see reference No. 2). PVC use in packaging must be ended.

References

1. Lemieux, P. 1997. Evaluation of Emissions from the Open Burning of Household Waste in Barrels, Vol. 1. Technical Report, U.S. Environmental Protection Agency, National Risk Management Research Laboratory, Research Triangle Park, NC. EPA/600/R-97-134a (NTIS PB98-127343).
2. Gullett, B. K., P. Lemieux, C. Winterrowd, D. Winters. 2000. PCDD/F Emissions from Uncontrolled Domestic Waste Burning. Presented at Dioxin '00, 20th International Symposium on Halogenated and Environmental Organic Pollutants & POPs, held Aug 13-17 at Monterey, CA. Corrected revision of short paper in Organohalogen Compounds 46: 193-196.

Thank you for taking these comments into consideration in the development of the Phase One North American Regional Action Plan on Dioxins, Furans and Hexachlorobenzene.

Respectfully Submitted,

Donald L. Hassig
Cancer Action NY
531 CR 28
Ogdensburg, NY 13669, USA
canceraction@hotmail.com
315 393-1975