

RACHEL'S HAZARDOUS WASTE NEWS #171

Providing news and resources to the Movement for Environmental Justice -- March 7, 1990

Dioxin--Part 1

DIOXINS AND CANCER: FRAUDULENT STUDIES

For years, industry scientists have been claiming there's no evidence that dioxins cause cancer in humans. Now there is mounting evidence that such claims rely heavily on studies that are fraudulent. Two companies recently accused of producing fraudulent dioxin-and-health data are Monsanto and BASF.

Monsanto

A scientist with U.S. Environmental Protection Agency (EPA) says Monsanto falsified data in important studies that Monsanto used to support its claim that dioxin does not cause cancer in humans. Dr. Cate Jenkins, a chemist in EPA's Office of Solid Waste and Emergency Response, says EPA itself relied upon Monsanto's fraudulent data in setting health standards for dioxin, and Jenkins has asked the EPA's Science Advisory Board to reopen the matter of EPA's dioxin standards, to take a fresh look at available data.¹

Two important sources of dioxins in the environment are old chemical dumps and the incineration of municipal solid wastes,² which is why EPA is concerned about allowable levels of human exposures to dioxin.

BASF

The British technical journal, *New Scientist*, says, "A new analysis by a West German epidemiologist may have established the first clearcut evidence of a direct link between exposure to dioxins and cancer in humans. Friedemann Rohleder, an independent specialist, has produced a report detailing an unexpectedly high incidence of cancer among workers exposed to dioxins during an industrial accident at a chemicals plant in 1953."³

"The plant, operated by the West German company BASF, made trichlorophenol. Rohleder claims the company presented the data in a way that disguised the cancers," says *New Scientist*.

Background

Each of these claims of fraud relates to an industrial accident in which workers were exposed to dioxins; follow-up medical studies funded by the responsible companies have been published in mainstream scientific journals, claiming to show that no excess cancers have occurred in the dioxin-exposed workers. In fact, excess cancers have occurred, but

it appears that the data have been manipulated to hide the facts.

The Monsanto Case

In 1949, an explosion occurred at a Monsanto chemical factory in Nitro, West Virginia; as a result, many workers in the plant were exposed to the herbicide 2,4,5-T, which was contaminated with dioxin. (This herbicide was later the principal component of Agent Orange, the chemical defoliant used by the U.S. in Viet Nam.) In subsequent years, two Monsanto scientists, J.A. Zack and R. W. Gaffey, studied the exposed workers, comparing their health against the health of a similar group of workers who were not exposed to dioxin or 2,4,5-T.⁴

According to court documents attached to the EPA memo, "Zack and Gaffey deliberately and knowingly omitted 5 deaths from the exposed group and took four workers who had been exposed and put these workers in the unexposed group, serving, of course, to decrease the death rate in the exposed group and increase the death rate in the unexposed group."

Other studies of this same accident were also fraudulent, according to the same court documents, including a study by R.R. Suskind published in the *Journal of the American Medical Association*.⁵ "This published study of the workers exposed in the 1949 accident reported only 14 cancers in the exposed group and 6 in the unexposed group (a smaller cohort). However, the medical records produced [by Monsanto] to the Plaintiffs conclusively prove gross miscalculations and omissions... there were 28 cancers in the group that had been exposed to dioxins in 1949 as opposed to only 2 cancers in the unexposed group." Mr. Suskind published two other reports⁶ on the same accident, using his same data, to reach the conclusion that dioxin does not cause cancer.

The BASF Case

On the night of November 17, 1953, a runaway chemical reaction spewed dioxin-contaminated chemicals over workers and community residents of two small German cities, Mannheim and Ludwigshafen. Subsequently, an epidemiological study was used to deny workers any compensation for ailments they claimed they suffered as a result of exposure. In keeping with German law, the workers retained their own expert to review the data. Their expert, Friedemann Rohleder, received the data from the German government but found, to his surprise, that all the data

actually came from the BASF company itself. He analyzed the data and found that some workers suffering from chloracne, which is universally acknowledged to be evidence of high exposure to dioxin, had been placed in the low-exposure or non-exposed group. He found evidence of "diluting" the exposed group with 20 plant supervisory staff who, Rohleder believes, were not exposed. When Rohleder omitted the 20 supervisory staff, his analysis revealed statistically significant increases in two groups of cancers: cancers of the respiratory organs (lungs, trachea, etc.), and cancers of the digestive tract. "This analysis adds further evidence to an association between dioxin exposure and human malignancy," Rohleder told *New Scientist*.

[To be continued.]

¹Cate Jenkins, "Memo to Raymond Loehr: Newly Revealed Fraud by Monsanto in an Epidemiological Study Used by EPA to Assess Human Health Effects from Dioxins," dated February 23, 1990. Jenkins is a chemist with the Waste Characterization Branch (OS 332), Characterization and Assessment Division, U.S. EPA, 401 M St., SW, Washington, DC 20460. Loehr is Chairperson of the Executive Committee of the Science Advisory Board (A-101), Office of the Administrator, U.S. EPA, 401 M St., SW, Washington, DC 20460. The Jenkins memo has attached to it 25 pages of a brief filed in Case No. 5-88-0420, in the Appellate Court of Illinois, Fifth District by attorneys suing Monsanto on behalf of plaintiffs who say they were harmed when a Norfolk and Western railroad tank car derailed, spilling 19,000 gallons of a Monsanto chemical called "OCP-crude" into the community of Sturgeon, Missouri the night of January 10, 1979. Chief attorney for the plaintiffs is Rex Carr, 412 Missouri Avenue, East St. Louis, IL 62201; phone (618) 274-0434. Our thanks to Margo Blackwell, People Against the Incinerator (PATI), Bloomington, Indiana, and to EPA official William Sanjour, both of whom independently sent us the information about

Monsanto. We can mail copies of the Jenkins memo and attachments (28 pages) for \$14.00, which covers our actual costs of photocopying, handling and mailing.

²Oak Ridge National Laboratory. *Toxicological Profile for 2,3,7,8-Tetrachlorodibenzo-p-dioxin* [ATSDR/TP-88/23; PB89-214522] (Springfield, VA: National Technical Information Service, June, 1989), pg. 22, identifies dumas and incinerators as "the important sources of 2,3,7,8-TCDD exposure to the general population." This is the Agency for Toxic Substances and Disease Registry [ATSDR] toxicological profile for dioxin (See *RHWN* #169).

³Stephanie Wanchinski, "New Analysis links dioxin to cancer," *New Scientist* October 28, 1989, pg. 24. Thanks to Paul Cornett of Work on Waste USA, we have a copy of Friedemann Rohleder's paper, which he presented in late September at a dioxin conference in Toronto, Ontario; Rohleder's paper is entitled "Dioxins and Cancer Mortality—Reanalysis of the BASF Cohort." We can mail you the 14-page Rohleder paper for \$7.00, or you can request a copy directly from the author: Friedemann Rohleder, Friedrich-Hebel Str. 13, 1712 Werne, West Germany.

⁴Zack, J.A., and W. R. Gaffey, "A Mortality Study Of Workers Employed At The Monsanto Company Plant In Nitro, West Virginia," *Environmental Science Research*, Vol. 26 (1983), pgs. 575-591.

⁵R.R. Suskind, and V.S. Hertzberg, "Human Health Effects Of 2,4,5-T And Its Toxic Contaminants," *Journal of the American Medical Association*, Vol. 251, No. 18 (1984), pgs. 2372-2380.

⁶R.R. Suskind, "Chloracne, The Hallmark Of Dioxin Intoxication," *Scandinavian Journal of Work, Environment and Health*, Vol. 11, No. 3 (1985), pgs. 165-171.

⁷R.R. Suskind, "Long-Term Health Effects Of Exposure To 2,4,5-T And/Or Its Contaminants," *Chemosphere*, Vol. 12, No. 4-5 (1983), pg. 769.

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