

After the accident, several researchers studied the exposed workers for related health effects. In a mortality study of workers employed at the plant, Zack and Gaffey (1983) followed the plant workers who had developed symptoms of chloracne after the accident, to examine the chronic health effects of exposure to TCDD. In 1984, Suskind and Hertzberg (1984) published their study on the human health effects of 2,4,5-T and TCDD, which was "conducted to determine the long-term health effects of workplace exposure to the process of manufacturing the herbicide (2,4,5-T) ... including contaminants such as 2,3,7,8-TCDD." In the study of the health status of workers with past exposure to TCDD in the manufacture of 2,4,5-T, Moses and colleagues (1984), at the request of the United Steelworkers of America, conducted a health survey of current and retired workers of the plant: "The purpose of the survey was to determine if long-term health effects related to duration and/or intensity of past exposure to 2,3,7,8-TCDD could be demonstrated in the workers. Specifically, the study aimed to investigate effects documented from past studies."

Environmental Exposures

Guam is part of the United States

Domestic Use of Herbicides

Spraying of herbicides in the United States has been a practice of farmers, foresters, railroads, utility companies, and certain government agencies, for many years. Farmers used 2,4,5-T to kill broadleaf plants in pasturelands. Foresters, including the U.S. Forest Service and other federal agencies having jurisdiction over national lands, forests, and parks, have used herbicides to keep down brush and undergrowth and to eliminate unwanted hardwoods in pine forests. Other reasons for using 2,4,5-T were to limit the growth of weeds along railroad tracks, next to power lines, and along highways.

In April 1970, the U.S. Surgeon General reported that the use of 2,4,5-T could be hazardous to human health (Lilienfeld and Gallo, 1989). This prompted the U.S. Department of Agriculture to suspend the use of 2,4,5-T around homes, recreation areas, lakes, and ponds, and it canceled registration for the domestic use of 2,4,5-T, except for pastures and range lands (Gough, 1986; Lilienfeld and Gallo, 1989). The Environmental Protection Agency (EPA) finally banned the use of 2,4,5-T in the United States on February 28, 1979. The two major environmental events leading up to the domestic ban of 2,4,5-T were (1) the dioxin contamination of several sites in Missouri and (2) public concern about possible health effects of the spraying of herbicides in forests around Alesia, Oregon (Dux and Young, 1980).

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