

To the general public, dioxin is the archetype of toxic chemicals, a substance that in minute amounts causes cancer and birth defects. Dioxin, they say, is a prime example of "chemophobia," the irrational fear of chemicals. The counterreaction made front-page news in 1991. U.S. Assistant Surgeon General Vernon Houk claimed that the evacuation of Times Beach, Missouri, had been a mistake. Administrator William Reilly of the U.S. Environmental Protection Agency ordered a reevaluation of the toxicity of dioxin. He stated that "I don't want to prejudge the issue, but we are seeing new information on dioxin that suggests a lower risk assessment for dioxin should be applied. Raised to a high level of visibility by the use of Agent Orange in Vietnam, it continues to generate environmental issues that capture public attention: Times Beach, Seveso, Love Canal, herbicide spraying in the United States, waste incineration, and chlorine-bleached paper. The current scientific evidence argues not only that dioxin is a potent carcinogen, but also that the noncancer health and environmental hazards of dioxin may be more serious than previously believed. Indeed, dioxin appears to act like an extremely persistent synthetic hormone, perturbing important physiological signaling systems.