National Academies New Study Concludes Dioxin is Toxic
5th Review of 15 Year-Long Delayed Study Finds Widely Disbursed Chemical Causes Cancer, Developmental Problems & Birth Defects

The National Academies (NA) will release a controversial report on Tuesday confirming what numerous scientific panels have concluded over the past 15 years: dioxin is a potent cancer-causing chemical. Chlorine-based industries have been effectively stalling the release of the EPA’s controversial dioxin reassessment for 15 years. Dioxin can cause developmental and immune effects at levels close to those currently found in the general population. Every American eats dioxin when they consume fatty foods, and nearly every American has measurable levels of this chemical in their body.

"Although the NA review has confirmed that dioxin is a carcinogen, the EPA Dioxin Reassessment concluded this several years ago and recent studies have added additional weight to this conclusion," stated Dr. Richard Clapp, Professor of Environmental Health at Boston University School of Public Health. "Furthermore, there does not appear be safe 'threshold' for dioxin's carcinogenic effects. Evidence has accumulated since EPA began its reassessment in 1991 that dioxin also causes many other health problems even at low levels, such as developmental problems in children, immunologic problems in children and adults, reproductive problems in adults, and diabetes."

"The first health assessment of dioxin was in 1985," said Lois Gibbs, CHEJ Executive Director. Gibbs's struggle to clean up dioxin in her Niagara Falls NY community at Love Canal has been credited with launching the grassroots environmental health movement. "Over the past 21 years, chlorine-based industries have demanded reviews, reassessments and analysis. Each re-assessment and review affirmed the findings and newer scientific data continues to strengthen the conclusions that dioxin is a serious public health threat. The chlorine-based industry is following the tobacco industry's strategies to keep information from the public. Enough is enough—let's get on with establishing health protective regulations around dioxin discharges and clean ups," said Gibbs.

Dioxin is a known human carcinogen, active in the body at very small levels. Scientists at the Environmental Protection Agency (EPA) have long concluded dioxin and dioxin like compounds are highly toxic, but a strong coalition of industries responsible for generating the byproduct toxicant have successfully stalled progress on a 15-year study of the chemical. The EPA study—called the "Dioxin Reassessment"—still remains a draft, which has stymied the agency's development of federal regulations. However, EPA recently set a major precedent when they set the soil cleanup goal for dioxin at 30 parts per trillion (ppt) at the Escambia Wood Treating Co. Superfund site in Pensacola, FL.

"While the Government studies this chemical for 15 years another generation of children are being raised surrounded by land saturated with dioxin. It’s in their homes, yards, parks, gardens,
fish, and river” said, Michelle Hurd Riddick of the Lone Tree Council, an environmental watch dog group pushing for cleanup of Dow Chemical’s dioxin contamination in the Saginaw Bay Watershed of Michigan. “How many more reviews are we going to have? Dow keeps creating a smokescreen to confuse people about the toxicity of dioxin. It’s time to finalize this report and end the delays that threaten public health.”

Dow Chemical Company has been particularly aggressive in denying the toxicity of dioxin. The company’s product line, which is heavily reliant on chlorinated chemical production, has resulted in communities contaminated with dioxin. Dow faces major liability for dioxin at its global headquarters in Michigan where the company has contaminated more than 50 miles of a river system that leads to Lake Huron, one of the Great Lakes. The company has repeatedly attempted to weaken cleanup standards to reduce the company’s liability, while helping to create uncertainty at the federal level. The company has fought the state residential cleanup standard in Michigan, which is 90 ppt, although the federal government recently used 30 ppt for a site in Florida.

The NA review was the result of a last minute amendment to the 2003 EPA appropriations bill, which required NA to review EPA’s reassessment if a White House interagency task force did not reach consensus on its review of the draft report. This NA review is the latest in a series of reviews largely orchestrated by the powerful set of industries that generate dioxin including some chemical manufacturers, pulp and paper companies, smelting and incinerator companies.

"The fingerprints of the chlorine-based industry have been evident in earlier scientific reviews, and there is concern about this review as well," said Stephen Lester, CHEJ Science Director. "In past reviews a major point of debate advocated by dioxin generating industries has been the use of a model to calculate cancer risk that assumes some dioxin exposures are too small to cause harm—a dangerous approach which EPA has repeatedly rejected in the past. The debate over the validity of this model has been injected into every review for over 18 years by dioxin-generating industries and has led to repeated delays in finalizing the report."

Dioxin contamination is particularly high in areas with dioxin sources like incinerators, smelters, pulp and paper mills, chemical factories or other industries that use chlorine. The disposal of polyvinyl chloride (PVC) plastic is the largest source of dioxin-forming chlorine in solid waste. PVC is the leading contributor of chlorine to four combustion sources—municipal solid waste incinerators, backyard burn barrels, medical waste incinerators and secondary copper smelters—that account for an estimated 80% of dioxin air emissions. Residents living near PVC chemical plants in Mossville, LA had three times more dioxin in their blood than the average U.S. citizen. Dioxin has been found at hundreds of Superfund toxic waste sites. It was a contaminant in Love Canal, and Agent Orange, the herbicide sprayed in Vietnam that resulted in major health impacts for Vietnam Veterans. Dioxin has been found in milk, cheese, beef, pork, fish, chicken, birds, deer, turkey, squirrel, and worms, as well as soil and sewage sludge.

For more information, see "Chronological History of US EPA’s Public Health Assessment of Dioxin" and "Dioxin Fact Sheet" at www.chej.org/dioxin