

Monsanto Backgrounder

NITRO DIOXIN TEST RESULTS

MONSANTO COMPANY / ST. LOUIS, MO.

July 27, 1983

Tests of crushed rock samples taken from the surface in active work areas at Monsanto Company's Nitro, W. Va., plant, have been found to contain extremely small amounts of dioxin at levels well below one part per billion (ppb).

Monsanto has provided state and federal officials with the results of tests on these surface-level crushed rock samples as well as 38 subsurface soil samples.

According to George Roush, M.D., Director of Monsanto's Department of Medicine and Environmental Health, the soil samples were taken at depths of from six inches to about three feet below ground -- mostly in areas covered by several additional inches of crushed rock. "While some of these samples did find dioxin in the low parts per billion range, its presence, buried as it is below this crushed rock barrier, does not present a hazard to our employees.

"Thirty of these 38 soil samples contained less than 10 ppb. Only one sample contained more than 100 ppb and it came from soil which is covered over and protected from exposure by a layer of crushed rock in an area where the herbicide 2,4,5-T was manufactured some 20 years ago," Dr. Roush said.

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Dr. Roush reiterated that these findings clearly represent no hazard to the Nitro workforce. "We've already assured ourselves that no dioxin related health problems exist at this plant. Because of the plant's past 2,4,5-T manufacturing history, our Nitro employees have become one of the most medically studied industrial populations in the world.

"At least three separate health studies have been conducted on employees at this location and, other than the skin condition, chloracne, no long-term health problems that could be associated with dioxin exposure have ever been found here," Dr. Roush said.

Dr. Roush pointed out that the much publicized "one part per billion" cleanup guideline established by the federal Centers for Disease Control (CDC) does not apply to industrial sites. "That guideline," he continued, "is intended only for residential areas and is based on the virtually impossible assumptions that a small child would eat one gram of dioxin-contaminated soil every day for several years while at the same time being exposed to another gram every day through skin contact. Using this 'worst case' scenario, CDC has projected that a child, so exposed for 6½ years, would accumulate a large enough dose of dioxin to raise his risk of cancer by one additional chance in a million."

"This uniquely conservative risk analysis also assumes that humans are as sensitive to dioxin as laboratory animals and further, that dioxin causes cancer in humans. Neither of these assumptions has any basis in fact. The American Medical Association reported last October that there is no scientific

evidence that dioxin has caused cancer or birth defects in humans," Dr. Roush said. "On the contrary," he continued, "the substantial amount of medical information available to date clearly shows that, other than chloracne, no long-term human health effects have ever been associated with exposure to dioxin."

Nitro Plant Manager David S. Frazer said these results are based on Monsanto's own laboratory analyses of both its own crushed rock samples and the shared soil samples taken by EPA Region III personnel on July 1. The typical sample accuracy at these ultratrace levels is in the range of plus or minus 50 percent. The EPA results on its half of the samples are expected in the next few days.

"The sampling was done as part of EPA's national dioxin surveillance program. Monsanto's Nitro plant is cooperating in the implementation of this program because the plant manufactured the herbicide 2,4,5-T from 1948 to 1969. It is now known that dioxin was formed in trace amounts as an unwanted, unavoidable contaminant in that production process," Mr. Frazer said.

Mr. Frazer said the company expects to meet with state and federal officials after EPA's own results are available to discuss the situation further.