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Dioxin is found in cleanup workers' blood

Two professional cleanup workers who helped mop up a 20,000-gal. spill of orthochlorophenol in Sturgeon, Mo., last January have been found to have low levels of TCDD (2,3,7,8-tetrachlorodibenzo-*para*-dioxin) in their blood, according to the Environmental Protection Agency. The highly toxic dioxin—a contaminant of orthochlorophenol—has so far caused no adverse health effects in the workers.

The orthochlorophenol was en route from Monsanto to a customer on January 10 when the Norfolk & Western tank car carrying it derailed in Sturgeon. "Quite a cloud of obnoxious gas" was released, EPA says, and forced temporary evacuation of most of Sturgeon's 300 residents. Cleanup workers from Western Environmental Services (Portland, Ore.)—hired by the railroad—arrived the same day to contain the orthochlorophenol and eventually remove the contaminated soil from over a mile of trackbed. Although "Western Environmental supplied full protective equipment for all employees," according to N&W, five of the men subsequently tested showed traces of orthochlorophenol in their urine. Monsanto later notified EPA that its orthochlorophenol shipment contained 37 parts per billion of TCDD, although the company said it was not possible to determine whether the dioxin was the highly toxic 2,3,7,8 isomer of TCDD. (EPA's own later analysis of the ortho from several laboratories confirmed the presence of the 2,3,7,8 TCDD isomer, officials report.) The five workers contaminated with orthochlorophenol were then tested for dioxin.

One worker who reportedly disregarded safety procedures and let his hands come in contact with the orthochlorophenol has approximately 31 parts per trillion of 2,3,7,8 TCDD in his blood, EPA says. Another worker has 7 parts per trillion and N&W says it doesn't know how he could have been contaminated. Western Environmental declined comment. Because human dioxin contamination is rarely reported in scientific literature, EPA officials are unsure whether the workers' levels are cause for concern. "We don't know if they're high or low, but I would guess there's no toxicological significance," said Dr. Joseph Seifter, an EPA physician, especially because there have been no adverse health effects thus far. But the workers will still be monitored, he added. □