



Styrene Inhalation

March 29, 2007

A resident from Snellville, Georgia inquired about potential health effects of styrene gas present in his community's homes due to recent storm sewer maintenance in his neighborhood. The smell was giving the residents headaches.

The Chemical Hazards Program (CHP) contacted a Gwinnett county contractor who installed in-place polymer liners in storm sewers along the neighborhood in Snellville. The process involves running a polyester resin tube inside existing storm pipe, then filling it with 180 degree water. A styrene based thermoset resin and catalyst sytem is used to cure the resin in place when the 180 degree water is added. During this process, all the styrene is gassed off.

When the concerned resident started complaining about a bad odor in his house, the contactor discovered an illegal drain pipe coming from his home that was connected to the storm pipe. Apparently, the previous owner of the house had basement flooding problems

and a french drain and piping system was built underneath the basement. Because of the connection to the storm pipe, styrene gas was piped into the french drain system and odors permeated the resident's home. The homeowner was ventilating his house during the day, which CHP told him was the right thing to do. On April 2, 2007, CHP called the resident and he stated that the smell had diminished, but was still present. CHP informed him that NIOSH relative exposure limit was set at a TWA of 50 ppm.

Without measuring the actual indoor air concentration, we have no way of knowing whether his family is being exposed to styrene gas above the REL. He stated that he was continuing to ventilate his house and CHP informed him that this was all he could do and that the styrene gas would eventually dissipate.