

REAL PEOPLE—REAL STORIES

Seeking Environmental Justice

Glenola, NC (Randolph County)

OVERVIEW

In 1997, Trinity Foam and Fiber, a manufacturer in Glenola, North Carolina, was closed by the state because air and groundwater contamination exceeded accepted levels. Residents had begun reporting health problems and noxious fumes more than 15 years earlier. In the mid 1990s, state and federal agencies tested air and wells surrounding the company and issued several public health notices. This case marked the first time a North Carolina Health Director formally declared a company a public health nuisance.

THE COMMUNITY

Glenola is an unincorporated community in Randolph County, North Carolina. The city of High Point, located about eight miles northwest of Glenola, is a furniture manufacturing center. More than half of all furniture made in the United States is manufactured within 200 miles of High Point.



Randolph County, North Carolina.

Source: Wikimedia.org

Newspaper articles estimated Glenola's population as about 500 residents in 1996. According to the 2000 US Census, about 97% of Glenola residents are white and 65% have at least a high school level education. The median household income is \$39,934. In 2000, Randolph County was ranked 51st of more than 3,000 counties in the nation for releasing cancer-causing chemicals into the air and water.

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THE HAZARD

Trinity American Corporation was founded in 1977, and their Glenola-based foam and fiber plant opened soon thereafter. Two hazardous chemicals are traditionally used in foam production: methylene chloride and toluene diisocyanate (TDI). Exposure to methylene chloride can cause dizziness, headaches, skin and eye irritation, breathing difficulties and irregular heartbeats. The Occupational Safety and Health Administration (OSHA) classifies methylene chloride as a potential cancer-causing chemical. In 2003, after the events in this story, the Environmental Protection Agency (EPA) banned the use of methylene chloride in all flexible polyurethane foam fabrication facilities.

TDI is a severe irritant that affects the mucus membranes. Exposure can cause euphoria, muscle coordination and vision problems, asthma, and lung damage. TDI exposure can cause problems at very small doses because the chemical is so readily absorbed into the lungs and sensitivity increases after repeated exposures.

WHAT HAPPENED?

Beginning in 1981, many residents reported health symptoms they believed to be connected to Trinity's manufacturing and expressed concern about the odor emitted from the plant. They noticed fires, spills, noxious odors, and flurries of fiber particles. Some had animals die or saw rusted chemical barrels in a creek. In the mid-1990s, concerned residents formed Glenola Citizens for a Healthy Environment to ask for more government monitoring and enforcement.

In 1994 the state health department found toxic chemical contamination in two Trinity wells used for drinking water, and the county health department ordered Trinity to stop improperly disposing sewage and waste water.

One year later, state health inspectors measured TDI levels as high as 10 times and methylene chloride levels 38 times higher than the acceptable levels. In response to the methylene chloride levels, the director of NC Department of Environmental Management (NC DEM), issued the state's first "toxics call." This required Trinity to decrease its emissions. Trinity appealed the toxics call, and NC DEM negotiated a settlement requiring Trinity to cut emissions in half by the end of 1996, install new foam manufacturing equipment not reliant on methylene chloride, and clean up tainted ground water around the facilities.

The federal EPA got involved in 1996 and discovered an additional compound of TDI in Trinity's emissions. When the new form of TDI was accounted for, exposure estimates doubled. The EPA also discovered contamination in two neighboring wells.

"We were being told we were crazy. So we organized the Glenola Citizens for a Healthy Environment. Every time they would tell us, 'Oh this is the truth' we would go and do our homework and say, that's a lie – this is the truth."

- Community Member

WHAT HAPPENED? (continued)

In 1996, the North Carolina Division of Air Quality (NC DAQ) found methylene chloride at 27 times and TDI at 206 times their acceptable levels. State health director Ron Levine declared the company a “public health nuisance” and ordered Trinity to stop all processes that could release TDI until it set up a monitoring system and presented a plan for reducing emissions.

Shortly after that, tests showed levels of TDI four times higher than the state standard. Trinity president Jerry Drye closed the facilities for several weeks to install new smokestacks. When new equipment and taller smokestacks were installed, Trinity was allowed to resume full production.

In 1997, The EPA issued an emergency order under the Safe Drinking Water Act. The order required Trinity to test the groundwater of all residents within three-fourths of a mile of facilities and provide bottled water to households with contaminated water. Tests showed that at least one household’s water was contaminated with more than ten times the safe amount of methylene chloride. Trinity blamed the contamination on the previous owner and tried to convince a court to lift the order, but the court upheld the EPA order.

Glenola residents trying to secure safe drinking water had a difficult time convincing the nearby town of Archdale to extend their water lines, but they put pressure on their legislators and were able to secure money from the NC General Assembly for the project.

In late August 1997, the federal Agency for Toxic Substances and Disease Registry (ATSDR) declared that Trinity Fiber was a public health and safety hazard. This motivated state health director Levine to again declare Trinity a “public health nuisance.”

In response to ATSDR tests finding high levels of pollutants in the surrounding air, the Randolph County

Health Department recommended that 100 residents voluntarily evacuate their homes the night before Trinity was scheduled to close. About 60 residents chose to evacuate temporarily. Most returned the next day.

Trinity Foam and Fiber was forced to close by the state on September 3, 1997.

“We’d get this real strong odor. . . . It smelled like burning electrical wire and sewage mixed up together or something.”

– Community Member

“We knew something was wrong. You know, when we had this bad air day and your eyes start burning and you just feel bad.”

– Community Member



A foam slabstock machine. Source: www.foam-cutting-machinery.com

AFTER THE PLANT CLOSED

Many of the 170 employees at Trinity opposed what they perceived as unfair targeting of their company. When the state closed the plant, these employees picketed the local and state health departments. However, the company remained closed.

Although Trinity was originally set to undergo emissions testing and reopen, the EPA issued an Administrative Order prohibiting Trinity from manufacturing foam or fiber. The ATSDR also said that its investigation strongly suggested Trinity had been emitting hazardous materials into the air at dangerous levels.

After Trinity production stopped, an employee of the state Division of Epidemiology noted that levels of TDI in the air decreased to safe levels.

The state contracted with a medical center to conduct clinical evaluations of Glenola residents. Tests showed that 22% of subjects showed symptoms of reactive airway disease, a disorder similar to asthma. The study concluded that residents were exposed to TDI and suffered negative health effects as a result.

In July 2001, ATSDR released another report indicating that 15 to 40% of children who grew up near Trinity facilities developed asthma.

After Trinity closed, the state issued warnings to four other foam plants in the state, giving them six months to reduce their TDI emissions.

As the Trinity plant was being closed, another North Carolina foam manufacturer was phasing out use of methylene chloride in all of their North Carolina plants, replacing it with acetone, a less hazardous substance that also appears to be more efficient than methylene chloride.

“To the very end we cared about people’s jobs. I care about people’s jobs today, but I know they all got good jobs in safer environments than they were in here. . . . You can go find you another job, but once your health is stolen from you, taken from you, it’s gone, never to be replaced.”

– Community Member

This is part of a series of stories about how communities in North Carolina have faced environmental health concerns. Sources include articles from *The News & Observer* (Raleigh, NC) and interviews with community members. A longer version with references is available on our website. Published in January 2007.



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