

# Toxic Air



by [Carrie Beasley](#) November 9, 2022

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Sterilization Services of Tennessee in South Memphis is at the center of an Environmental Protection Agency investigation. The EPA is warning people who live near medical sterilizing plants about potential health risks from emissions of ethylene oxide (EtO), a

chemical widely used in their operations. (Photo: Tennessee Lookout/Karen Pulfer Focht)

Leona Golster loves her home in South Memphis, but sometimes it's hard for the 78-year-old to breathe on her front porch.

Every now and then, the wind blows the smell of chemicals from the Sterilization Services of Tennessee (SST), a facility that uses ethylene oxide (EtO) to sterilize equipment for businesses throughout Tennessee.

“Smells like they're burning something,” she said, pointing to the building less than a mile away from her home.

For the past few decades since the facility moved into her community, Golster has gone inside to escape the smell or wore a mask to sit outside.

Not much was known about EtO when the SST facility was founded in 1976, and the Shelby County Health Department's air program granted the facility permits to operate in 1985. And while SST is following the U.S. Environmental Protection Agency's current rules and regulations, officials have since learned that a lifetime of exposure to EtO, a known carcinogen, could lead to long-term health impacts should current emissions continue.

Once, the smell bothered her, but “not like it used to,” she said.

She loves her home, a one-story brick house. She moved into this house in the 1960s after marrying a man she met at a club.

“He was a man, I tell you. He was a booga bear,” she recalled.

She raised her children there, three of whom are now deceased. Her two oldest daughters died from health complications as adults.

“She never did stop working,” she said of her second-oldest daughter. “We went to church, that Sunday she came home and died that evening. I gave her to the Lord, I said there ain’t nothing I can do, that’s God’s doing.”

Her youngest daughter died of pneumonia at 4 years old.

And since her husband died from a work-related accident seven years ago, Golster has lived alone, enjoying the quiet, seemingly abandoned neighborhood. Many houses are in disrepair, while others have been gutted.

After becoming aware of new information on EtO, the EPA announced outreach efforts to the communities living near the SST facility to inform them of the dangers in constant EtO exposure. EPA officials met with residents on October 18th.

About 292 households are located near the facility, according to the Memphis Community Against Pollution (MCAP). Although the EPA is supposed to be doing outreach to the neighborhood, MCAP volunteer Angela Johnson found few residents that knew about EtO or the EPA’s current involvement.

“If you don’t know it’s there, you don’t know it’s there,” she said.

As for Golster, she is often annoyed by calls asking to purchase her house, which she intends to live in for as long as she can.

“I stay to myself. I’ve been here for a long time. Nobody bothers me,” she said.

## **The toxic effects of EtO**

EtO, a colorless and flammable gas, has long been used to make other chemicals and products like antifreeze and plastic bottles, as well as sterilizing medical equipment and some spices to prevent contamination from bacteria and viruses, according to the EPA. And while EtO emissions at permitted levels today were not considered dangerous, studies have since shown that a lifetime of exposure could lead to long-term health impacts, including elevated cancer risks.

Breathing air containing EtO is the main method of exposure, since it is unlikely to remain in food or remain dissolved in water long enough to be eaten.

As a known human carcinogen, studies found that years of exposure to EtO could lead to non-Hodgkin’s lymphoma, myeloma, and lymphocytic leukemia. For women, long-term exposure increases the risk of breast cancer.

Growing up around EtO can lead to devastating effects for children.

Studies have shown that as children’s bodies develop and grow, they are much more susceptible to the toxic effects of EtO. As a mutagenic, EtO can damage DNA and can lead to long-term neurological effects.

And because children are likely to play outside more often than adults are outside, they are more exposed to EtO, said Courtney Roper, assistant professor of environmental toxicology at the University of Mississippi.

Since the EPA is now investigating the negative impacts of EtO, changes in regulations may follow. The EPA announced its intentions to propose strengthening current regulations around EtO while taking into account risk to those exposed.

But this could take years, said Roper.

“It’s not going to be like, ‘Oh, tomorrow you have to change this,’ even when regulations are in place, since facilities are given a set amount of time to kind of get into compliance,” she said.

The community cannot wait on new regulations, said Pearson, and MCAP planned on continuing mobilization efforts to enact swifter changes.

“This is the movement that we’re talking about, and we need you to go back to Atlanta and do your job well and know that you’ve got Memphis to support you,” he said.

“But we don’t have time to wait,” said Pearson.

*This story was written by Dulce Torres Guzman for Tennessee Lookout and originally published on [tennesseelookout.com](https://tennesseelookout.com) in two parts, which can be found [here](#) and [here](#).*