

**ETHYLENE OXIDE: CORRECTING THE RECORD**

Inaccurate claims hurt Georgia's citizens, communities and businesses

**MYTH**

BD emits higher levels of EtO than legally allowed.

BD is creating health risks for citizens in Covington and Madison, GA.

Medical sterilization plants are the main producers of EtO in our air.

**FACT**

BD is and has been in compliance with all laws and regulations relative to ethylene oxide (EtO) emissions as validated by the EPA and the GA EPD. In fact, the company historically emits 90% less emissions than its permit allows.

EtO levels in Covington are the same as what is seen anywhere in the U.S.

In November, EPA first reported EtO measurements from monitoring stations across the country in both urban and rural areas. The results confirm the presence of EtO with six-month averages ranging from about 0.2 to about 0.4 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

Georgia EPD and an independent lab on behalf of BD have also continued to conduct air monitoring around Covington. The combined results average 0.298  $\mu\text{g}/\text{m}^3$ , well within the range EPA found at monitoring stations nationwide that were not near industrial sources.

Further, the Georgia Department of Public Health has stated in numerous public meetings that their initial assessment shows no elevated incidences of cancer near any medical sterilization facility.

In the United States, just one-half of one percent of all ethylene oxide usage is attributable to medical device sterilization, and *BD is just a very small fraction of that*. The other 99.5% is used by other industries to make everyday products, including antifreeze, cosmetics, shampoos, laundry detergents, carpet, clothing; it's even used to sterilize food

The vast majority of ethylene oxide in our air comes from organic and industrial sources other than medical device sterilization facilities. EtO is a byproduct of combustion, meaning it is produced by campfires, grills, cigars and cigarettes, auto exhaust, lawn mowers and gas appliances among countless sources and is found in rural areas where there are swamps and decaying debris. Even our own bodies produce EtO.

## MYTH

If EtO readings exceed the EPA screening threshold of 0.02  $\mu\text{g}/\text{m}^3$ , it is more likely that people will get cancer.

Air monitoring readings above the EPA threshold can be solely attributed to medical sterilization plants.

You can see EtO spewing from the BD building.

There are other sterilization methods that can replace the use of EtO.

## FACT

According to the EPA, the screening threshold is NOT intended to represent “safe” or “not safe” or to make health assessments of any kind. In fact, EPA has never issued a standard or a safety level for EtO in ambient air.

A measurement can be above EPA’s screening threshold (0.02  $\mu\text{g}/\text{m}^3$ ), but that simply means the area may be warrant further study. Again, EPA’s threshold number is not intended as a health standard. It does not say that more people have gotten, or will get, cancer or any other disease. It may have nothing to do with health outcomes.

Further, no link to cancer has been observed with ambient or other low-level EtO exposure.

In Covington and Smyrna, it would be virtually impossible for the samples to be below EPA’s threshold. These are urban and suburban areas in which many sources of EtO already exceed the EPA threshold. The EPA did not account for EtO found in the environment which, per its recent nationwide monitoring, is 10-20 times higher already than the agency’s threshold. Thus, air monitoring in nearly any area, even rural areas, would exceed EPA’s threshold without any EtO from the medical sterilization industry.

This has been perpetuated by broadcast coverage and photos of the BD roofline with what appears to be smoke coming out of the building. This is a mischaracterization and is nothing more than water vapor – steam.

BD uses the best available technology to destroy 99.999% of EtO, better than the legal requirement of 99%.

EtO is the only option for sterilization of many lifesaving, critical medical devices, due to their material composition and complexity of design including syringes, urinary catheters, PICC lines, oncology ports, stents, feeding tubes and more. For these products, alternatives do not achieve the needed levels of sterility and can be unsafe for patients.

Although some medical devices can be sterilized by different methods, ethylene oxide is scientifically proven to be the most effective in preventing harmful microorganisms causing infections.