Committee: Education, Energy, and the Environment

Testimony on: SB0916 - Ethylene Oxide – Prohibition Bill

Organization: Self

Submitting: March 14, 2023

Position: Favorable

Hearing Date: March 15, 2023

Dear Chair and Committee Members:

Hello, my name is Dave Arndt, a resident of Baltimore MD, an environmental advocate, a chemical engineer and retiree of The National Institutes of Health. Thank you for allowing our testimony today in support of SB0916. I urge you to vote favorably on SB0916.

Beginning July 1, 2023, the bill prohibits the use, manufacture, sale, offering for sale, or distribution of ethylene oxide in the State of Maryland.

There are a few fundamental chemicals that are the building blocks to most thing that we use, and one of them is ethylene oxide (EtO). EtO is used to make plastics, glycols, detergents, solvents, adhesives, and pharmaceuticals. It is also used by commercial sterilization companies to render medical devices free of germs, and as a pesticide to fumigate spices. Unfortunately, EtO is also a highly volatile chemical, and a known carcinogen. The reliance on EtO means that its ubiquity is disastrous.

Facilities sterilizing food or medical products emit EtO from chimneys and vents (stack emissions), but it also leaks from pumps, values, and pressurized connectors since it is such a volatile gas—a phenomenon called "fugitive emissions." Because EtO is cheap to produce, waste from fugitive emissions is not a cost issue for companies to resolve. And current EPA regulations for public health don't require facilities to account for fugitive emissions, meaning companies have no reason to rein them in.

Unfortunately, lifetime exposure rates to EtO have shown it to be carcinogenic. It is also tied to other health effects such as reproductive effects and learning disabilities. Exposure to EtO in and near these facilities is a dangerous reality for workers and adjacent communities across Maryland. Scientist have documented the associated health risks of EtO since the late 70's and in the last 5 years there have been more than 2600 studies on the negative health effects of EtO.

Maryland has four commercial sterilizers. More than 343,000 people live within five miles of at least one of these facilities. There are two sterilizers between Washington and Baltimore, in Hanover and Jessup, they are roughly three miles apart. They are used to sterilize spices and dehydrate vegetables. The EPA has identified both facilities as contributing to elevated cancer risks. According to the EPA's ECHO database, these facilities reported a combined 143 pounds of EtO releases and transfers in 2021. More than a quarter-million people and nearly 200 schools and childcare centers are within five miles of these facilities. Both of these communities have a disproportional higher concentration of people of color than the rest of the county they are in.

The other issue with these plants is that they are sterilizing food. EtO just doesn't magically disappear, residues of this cancer-causing substance remain. Unfortunately, processors don't have to tell

consumers about this. Safer alternatives, such as food irradiation or steam treatment are increasingly being used to replace fumigation with EtO. Europe has banned EtO sterilizers and prohibits the importation of EtO sterilized foods. Since 2003, Australia has banned the use of EtO for any foods that are sold in Australia. They cited the potential health risks to consumers for this decision.

To protect the health of the residents in Maryland, I support SB0916 and recommend a FAVORABLE report.