

EtO & New Tazewell, TN

- Ethylene oxide (EtO) is used by a commercial sterilization company in New Tazewell.
- People who work at or live near the commercial sterilization company may be exposed EtO.
- Immediate "acute" health effects from exposure to EtO in outdoor air are not expected.
- The main health concerns with breathing EtO over many years is an increased risk for developing Non-Hodgkin's lymphoma, leukemia, stomach, or breast cancer.
- 2010-2019 data showed no clustering of four EtO-associated cancers in areas near company.

Commercial Sterilization Company in New Tazewell

- Opened 40 years ago in 1973
- Uses EtO to sterilize medical equipment
- Is up to date on all required air permits
- Works with the Tennessee Department of Environment and Conservation (TDEC) to limit emissions

Why is EtO an issue now?

- US Environmental Protection Agency (EPA) reassessed EtO's health risks and found EtO may be more harmful.
- EPA determined communities living near commercial sterilization companies may be exposed to fugitive emissions of EtO.
- Current laws control how much EtO is released to air from stacks. EPA will add rules to control fugitive emissions.

Tennessee Department of Health's Tennessee Cancer Registry Cancer Cluster Analysis

- Used cancer data from 2010-2019
- Compared cancer rates of area around facility to cancer rates of unexposed neighboring counties
- Looked at four cancer types: Non-Hodgkin's lymphoma, leukemia, breast cancer, and stomach cancer
- Reminded cancer is complex, has many risk factors, and how cancer cluster studies can't pinpoint causes due to many limitations
- Found no evidence of clusters of Non-Hodgkin's lymphoma, leukemia, breast cancer, or stomach cancer near New Tazewell facility

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Cancer in Claiborne County

- Based on 2014-2018 data, the all-cancers-combined rate in Claiborne County was:
 - Higher than TN state rate
 - Highest in Northeast TN counties
- Many factors can lead to higher cancer rates such as higher smoking rates, higher radon exposure, poor diet, and lower rates of cancer screenings
- Higher cancer rates in Claiborne County likely from other reasons not related to EtO

State Health Actions

- Tennessee Department of Health (TDH) Environmental Epidemiology Program (EEP) continuing to learn about EtO and health
- Tennessee Cancer Registry (TCR) and EEP looking for trends in health data
- Learning from other states and CDC's Agency For Toxic Substances and Disease Registry (ATSDR)
- Community engagement - we're here for you

Federal Health Actions

- ATSDR has published several resources:
 - ToxFAQs on EtO
 - Clinician's Brief on EtO (to give to your doctor)

State Environmental Actions

- Current operations have been regulated at state level by Tennessee Department of Environment and Conservation (TDEC) since 1986
- Makes sure equipment at facility is removing EtO from what's coming out of the stacks to level defined by rules
- TDEC does this through regular inspections
- In 2021, TDEC permitted construction of an additional building on property with added emissions controls
- Continues to partner with facility to limit fugitive emissions ahead of federal rule

Federal Environmental Actions

- EPA has proposed new rule to limit fugitive emissions of EtO
- Held community meetings to discuss new rule and explain rule-making process

Contact Information

For questions on health:

- TDH Environmental Epidemiology Program, EEP.Health@tn.gov, 615-741-7247
- TDH Tennessee Cancer Registry, TNCancer.Registry@tn.gov, 615-741-5548, 800-547-3558
- ATSDR, eto@cdc.gov, 800-232-4636

For questions on workplace exposures:

- TDLD, Tennessee Occupational Safety and Health Administration (TOSHA), Tennessee.OHSA@tn.gov, 615-741-2793 or 844-224-5818 (Option 3, then 2)

For questions on environmental regulations:

- TDEC Air Pollution Control Division, Ask.TDECETO@tn.gov, 888-891-TDEC (8332)
- EPA, Region4eto@epa.gov, 800-241-1754



Department of
Health