Ethylene Oxide and Risk in the Community of Memphis, TN

Thank you for joining the meeting!

Your microphones have been muted to reduce background noise.

Please use the Zoom controls to connect to audio and visuals as desired.

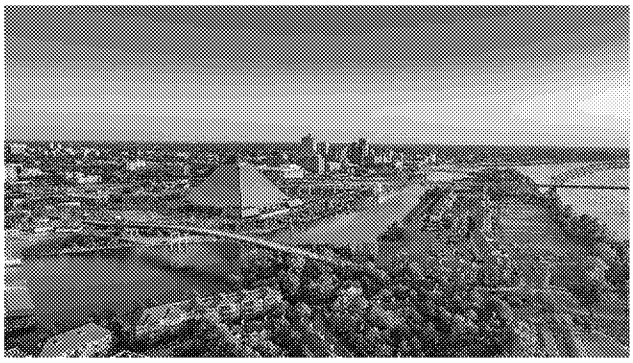
Let us know if you are having any technical issues via the **Chat function** at the bottom of your screen.

Closed captioning/Live transcription is available. To enable or disable the streaming text for Closed captioning, click the icon on your Zoom control bar and select "show" or "hide" subtitle.

If you are participating via Zoom, please enter any questions for our panel by using the **Q&A function.**

If you are **listening on your phone** and cannot access the Q&A function, press ***9 to let us know you have a question**. Once we identify you by the last four digits of your phone number, press ***6 to unmute**.

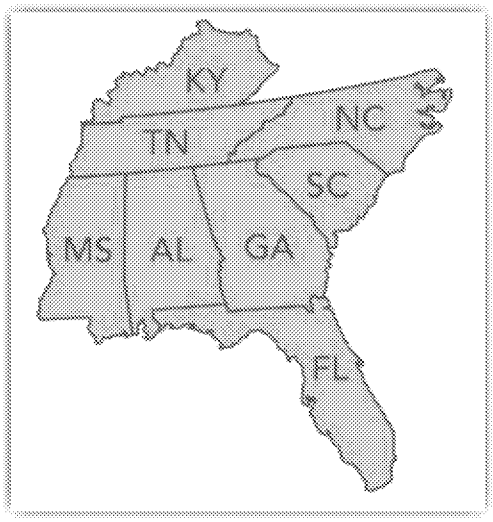
Ethylene Oxide and Risk in the Community of Memphis, TN



- EPA Region 4 Contact Information:
  - 800-241-1754
  - Region4EtO@epa.gov
- EPA Website: www.epa.gov/eto/Memphis

Daniel Blackman

EPA Region 4 Administrator



Madeline Beal

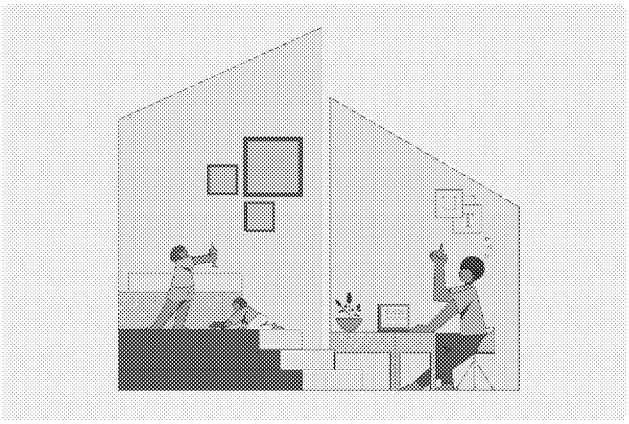
EPA Senior Risk Communication Advisor

Why we are here today

1 Pollution is increasing health risks in your neighborhood.

2 We are working to reduce this risk in three ways.

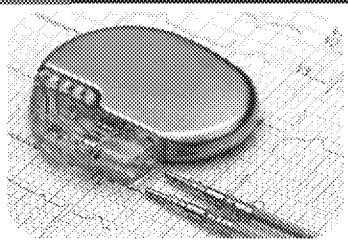
3 We want to hear from you.

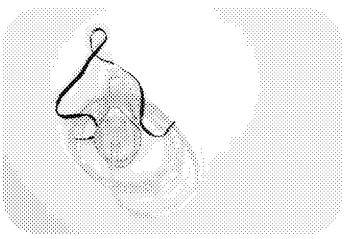


What is Ethylene Oxide?

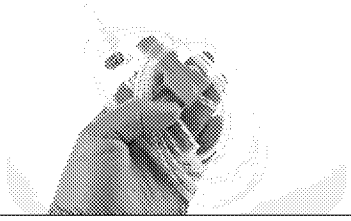
Gas: Colorless, Flammable, Odorless

(in concentrations we see in communities)





Sterilization Services of Tennessee uses EtO to sterilize medical and dental equipment.



Current knowledge suggests these risks are not a concern

No indication of non-cancer risk:

- From soil or water
- Acute or emergency health impacts
- From consumer use of products made with or sterilized with EtO

Over your lifetime

Breathing in EtO over many years can cause breast cancer and white blood cell cancer.

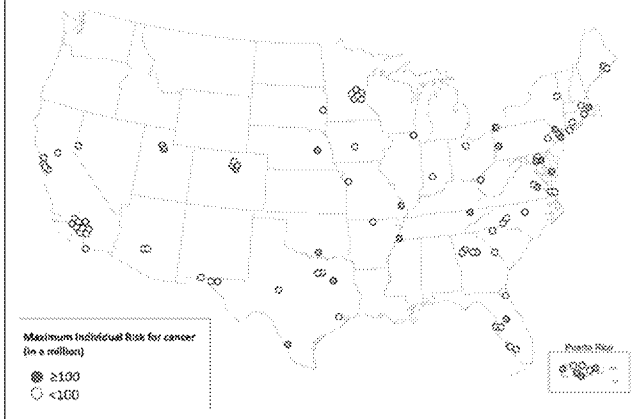
Special Considerations about Risk

Workers may be exposed at higher levels.

Children and babies may be at higher risk.

This risk assessment and the rule it supports are focused on community risk not worker risk.

National Context



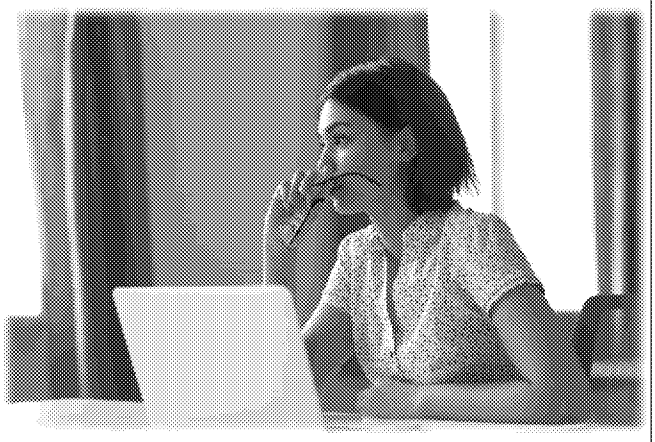
- Approximately **100** commercial sterilizers in the United States
- Sterilization Services of Tennessee is **one of 23** with the **highest risk**
- More information on all facilities at https://www.epa.gov/eto

Understanding Risk

How close?

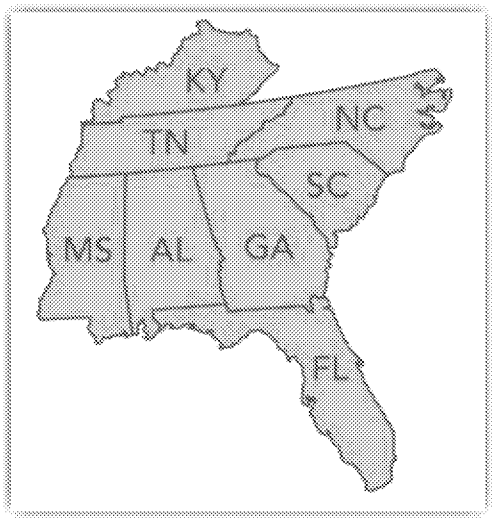
How much?

How long?



Caroline Freeman

EPA Region 4 Air and Radiation Division Director



EPA Headquarters Modeling Analysis

- EtO Uses
- Facility Processes
- Facility Equipment
- Weather
- Community Details

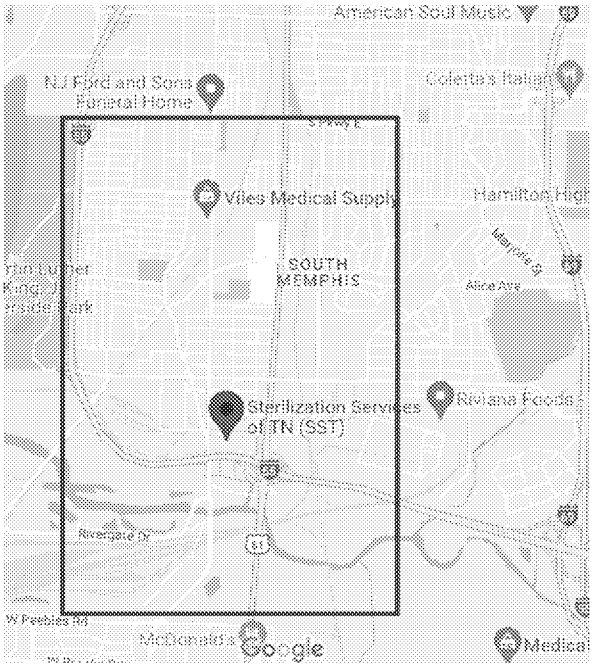
Modeling Analysis

Maps the Risk Caused by EtO from a Facility

Sterilization Services of TN Boundary Map

Area of Impacts:

- South to East Peebles Rd;
- North to South Parkway East;
- 250' West of the intersection of I-55 and Riverport Rd; and
- East to South Lauderdale Street



Sterilization Services of Tennessee
Memphis, Tennessee

Maximum Risk Level: 2,000/Million

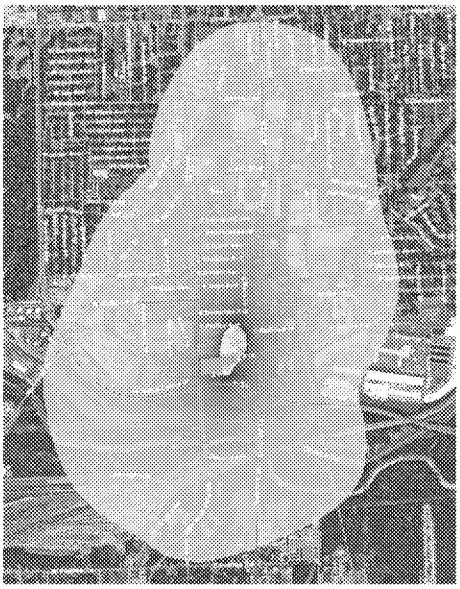
Blue: Estimated lifetime cancer risks of 100 to 2,000 in one million.

Lifetime cancer risk - breathe air containing EtO at the level estimated at that location for 24 hours a day, every day for 70 years.

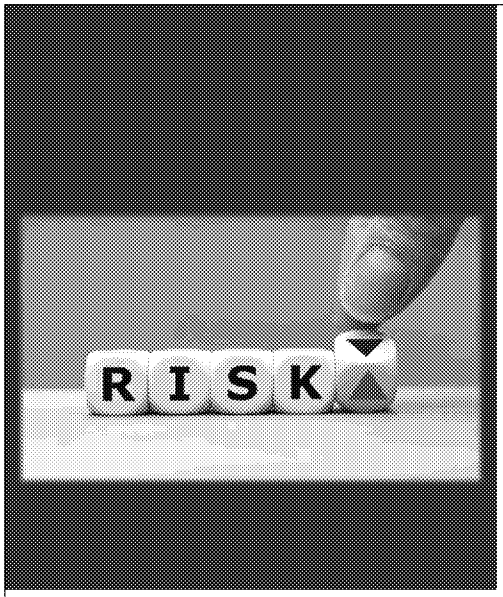
This estimated risk is in addition to cancer risk from other causes.

For more information and to view this map online: https://www.epa.gov/eto/memphis

Lifetime Residential Cancer Risks - EtO Sterilization
Sterilization Services of Tennessee, Memphis, TN



EtO Sterilizer Facility
Non-Residential Area
Lifetime Residential Cancer Risk (in a million)
100 2000
0 0.25 0.5 mi



Recent Steps Taken to Learn about Risk and Reduce It:

- July 2022: Complete analysis showing where, in which specific communities, risk is highest for people who live nearby.
- Continue to seek more immediate reductions of EtO coming out of facilities.

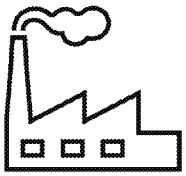
Previous work:

- 2016: Learn EtO is more dangerous when people breathe it in.
- 2018: Initial analysis showing that EtO might be causing risk near certain types of facilities.
- 2020-2022: Collect and verify data and complete analysis to understand more exactly where there is risk and why.

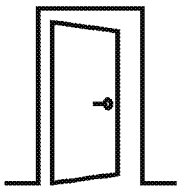
Where EtO Comes from at the Facility

There are two types of EtO emissions from facilities:

Controlled Emissions

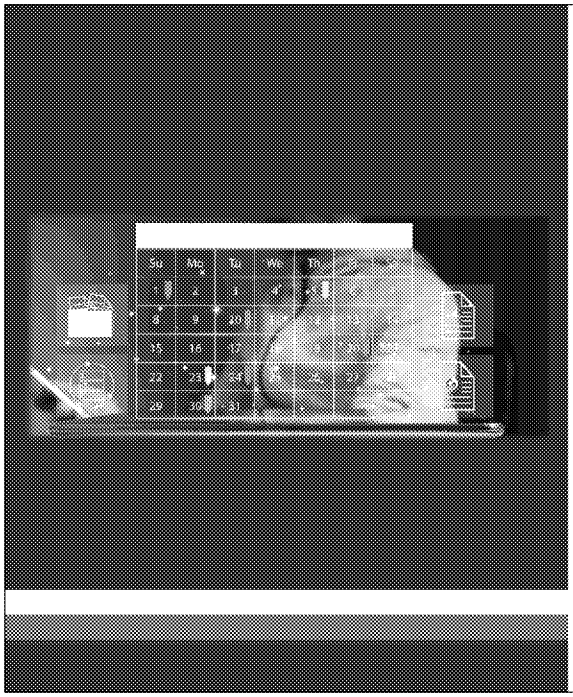


Fugitive Emissions



In this community, the majority of the risk is being caused by <u>fugitive</u> emissions

Reducing EtO coming out of the facility is the best way to reduce risk.



Timeline

- New regulation to be proposed in the coming months.
- The public comment period will last 60 days.
- Final rule is expected in 2023.
- Once the rule is final, the Clean Air Act allows up to 2 or 3 years to comply with new requirements but EPA plans to solicit comments on a shorter period.
- Additional resources on the comment process are available here: https://www/epa.gov/eto/comment

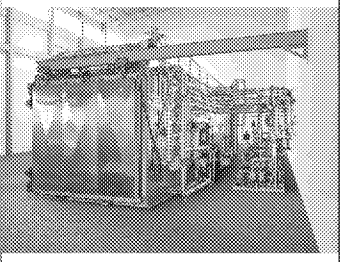
Key Points

EPA has learned that EtO is causing health risk in your community.

We are working to reduce this risk by:

1. Working across government and industry to reduce EtO coming from Sterilization Services of Tennessee.
2. We are updating air pollution regulations to be more protective of your health.
3. We are sharing these risk results with you, so you have the same information we have.

Placeholder for Shelby County Slides



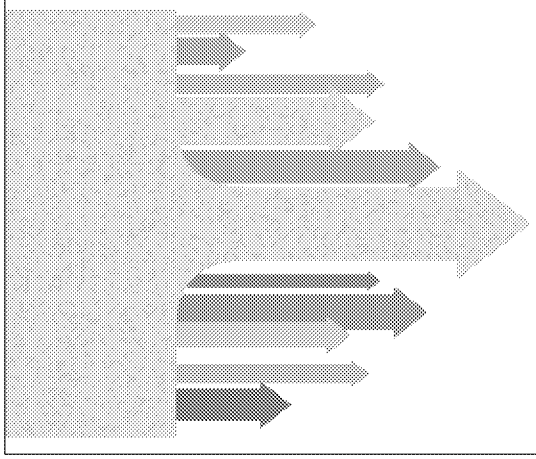
- **In-person Participants**: Proceed to a microphone. We will also read aloud some questions that have been provided on comment cards during the Q & A session.
- **Zoom Participants:** Enter your questions by using the **Q&A function.**

- **Phone Participants:** If you are listening on your phone and cannot access the Q&A function, press *9 to let us know you have a question. Once we identify you by the last four digits of your phone number, press *6 to unmute.

You may also submit questions to EPA by:

- Sending us an email at Region4EtO@epa.gov, and we will respond after the meeting
- Or give us a call at 800-241-1754

Next Steps



- Go to https://www.epa.gov/eto/memphis to learn more
- You can find more information about EtO at www.epa.gov/eto
- Sign up on the "Interested Individuals" list at the front to receive updates.

Extra Slides

Dr. Michelle Taylor

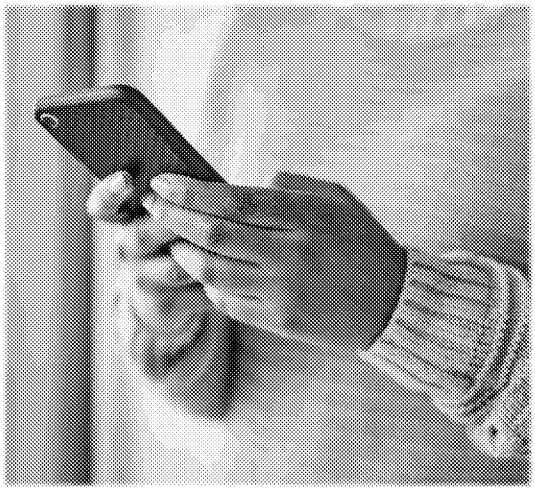
Shelby County Health Department Director

Translation

This evening's session will offer live interpretation through zoom online audio.

- To access the audio interpretation services, click the globe or interpretation button. Then select your language of choice, English, Spanish, or Chinese Simplified.

- La sesión de esta noche ofrecerá interpretación en vivo a través de audio zoom en línea. Para acceder a los servicios de interpretación de audio, haga clic en el botón de globo o interpretación. Luego seleccione su idioma preferido inglés, español o chino simplificado.

- 今晚的会议将通过 Zoom 在线音频提供现场口译。想要使用音频口译服务，请单击地球图标或“口译”按钮。然后选择所需语言：英语、西班牙语或简体中文。

Use the Q&A module to submit questions for the panel or the Chat feature to ask for technical assistance.