



## Stop EtO

Lake County, IL

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Clerk's Office  
Illinois Pollution Control Board  
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**Docket: R19-18, (35 Ill. Adm. Code 249)**  
**Ethylene Oxide Ambient Air Monitoring Requirements**

Dear Illinois Pollution Control Board Members,

*Stop EtO* is a grass-roots citizen group formed by residents and parents who are fighting to eliminate industrial ethylene oxide emissions in Lake County.

The United States Environmental Protection Agency designated ethylene oxide as a known human carcinogen<sup>1</sup> via the inhalation route. EtO is highly carcinogenic because it causes DNA mutations which induce formation of tumors in the lymphohematopoietic system, brain, lung, connective tissue, uterus, and mammary glands.<sup>1</sup> In December 2016, the US EPA Integrated Risk Information System (IRIS) updated the cancer risk for EtO. It amended the adult-based inhalation unit risk from 0.0001 per microgram per cubic meter ( $\mu\text{g}/\text{m}^3$ ) to 0.003 per  $\mu\text{g}/\text{m}^3$ , a 30-fold increase in cancer potency in adults and a 60-fold increase in cancer potency in children.<sup>1,2</sup> Based on the changed unit risk, the concentration of ethylene oxide associated with a 100-in-a-million cancer risk for a lifetime of continuous exposure is 0.02  $\mu\text{g}/\text{m}^3$ .<sup>3</sup>

There are two industrial facilities in Lake County which emit substantial amounts of EtO in the air thus significantly increasing cancer risks in our communities. These emitters are Vantage Specialty Chemicals located at 3938 Porett Dr. Gurnee, IL 60031 and Medline Industries Inc. at 1160 S. Northpoint Blvd., Waukegan, IL 60085. Both facilities are within three aerial miles of each other. Hundreds of thousands of Lake County residents live within dangerous proximity to EtO emissions coming from these polluters.

Lake County communities learned of industrial EtO emissions from a November 2018 Chicago Tribune article.<sup>4</sup> Since then, four separate phases of air monitoring near Medline and Vantage were conducted by the Lake County Health Department. In each phase, elevated EtO concentrations well above the 0.02  $\mu\text{g}/\text{m}^3$  cancer risk threshold established by the US EPA were measured near both Vantage Specialty

Chemicals and Medline Industries. The highest level measured in June 2019 (near Medline), registered at 10.0 µg/m<sup>3</sup>, which equates to a 500-fold increase above the cancer risk threshold.<sup>5</sup>

As communities hosting these polluters in Lake County and across the nation demand much needed change, the chemical industry has worked diligently to sabotage the IRIS report and any other studies illuminating the grave danger these industrial polluters pose. For instance, within days of the Chicago Tribune article<sup>4</sup>, Medline brought in a paid scientist from Exponent<sup>9</sup> (a consulting company with a long history of obfuscating scientific evidence on behalf of industry<sup>10</sup>) to testify in front of the Illinois House and Senate Environment Committees that the IRIS report was flawed.<sup>11</sup> That scientist, Dr. Jane Teta, previously submitted public comments during the EPA's EtO IRIS review process asking that they exclude breast cancer as an EtO target organ<sup>12</sup>, which the EPA ultimately decided against. Dr. Teta has also testified on behalf of the automotive industry that asbestos lined brakes are safe and not linked to mesothelioma.<sup>10</sup>

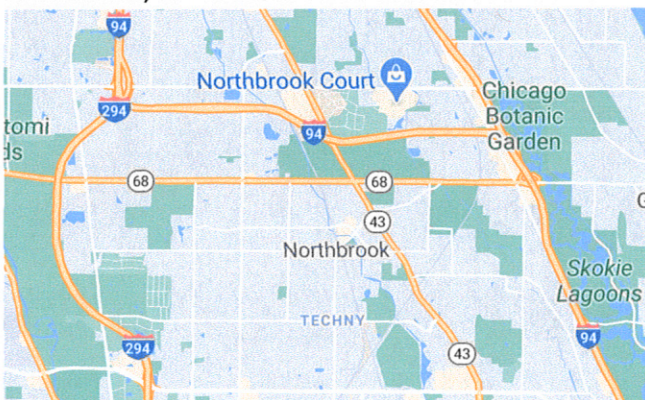
One effective strategy used by industrial polluters to raise doubts regarding EtO emissions is by skewing EtO background (ambient) air levels. If EtO background levels read high everywhere, then this could be spun as normal. By default, elevated ambient air levels near facilities appear less harmful, and the need for regulatory and enforcement agencies to take proactive steps to curb emissions is rendered moot.

This Board will consider for the IL EPA whether to monitor ethylene oxide ambient air levels in or around the following Illinois cities:

- Northbrook
- Schiller Park
- Nilwood
- Alton
- Bondville

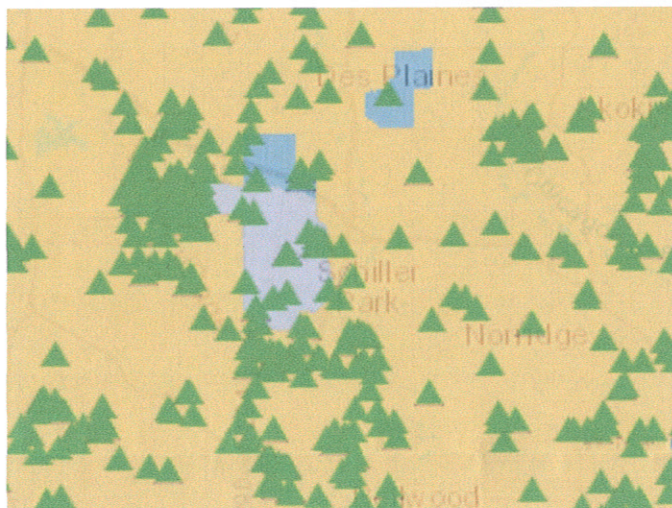
*Stop EtO* believes ambient air monitoring can be skewed to falsely appear higher by either manipulating statistical methods or by selecting air monitoring locations near known EtO emitters takes place. We are extremely concerned the Illinois Environmental Protection Agency has chosen several air monitoring locations that may artificially drive up baseline EtO ambient levels in favor of the chemical industry. We are specifically concerned about the following locations proposed to be used in setting a state wide baseline for Illinois:

- 1) Northbrook, IL – Northbrook is nestled between two major freeways, I-294 and I-94 (picture below).



Northbrook is already known to have elevated EtO ambient levels from a US EPA 6-month long air monitoring study<sup>6</sup>, which found an average of 0.294  $\mu\text{g}/\text{m}^3$ . It is unclear whether monitoring in the same location will provide additional information sought by the legislation under which IEPA is proposing this rule. In addition, Northbrook is located in the proximity of 3 hospitals which have self-reported to emit 379.4 pounds of EtO emissions to the Toxics Release Inventory (TRI) database<sup>8</sup> in 2014. We are not certain if these hospitals are currently using/emitting EtO because self-reporting to the TRI is not legally required of hospitals. As such, *Stop EtO* strongly recommends Northbrook be excluded from the list of locations for the EtO ambient air monitoring future IL EPA study.

- 2) Schiller Park, IL – Schiller Park is located adjacent to O’Hare International Airport, which is heavily polluted with ethylene oxide emissions from the airline industry. In 2019, O’Hare logged 919,704 flights, averaging 2,520 flights per day – making it the busiest airport in the United States.<sup>13</sup> The Air Quality Index in Schiller Park falls way below the US nation Air Quality Index average of 58<sup>14</sup>. In fact, Schiller Park is bordering the dark-blue region in the NATA map for air toxins, including EtO, as shown in picture below. The blue color on the map represents a NATA area where cancer risk from air toxins is above 100-in-a-million<sup>7</sup>; green triangles represent industrial facilities located in the area.
- For the reasons mentioned above, *Stop EtO* strongly recommends that Schiller Park be excluded from the list of locations where the Illinois EPA performs EtO ambient air monitoring.



<https://gispub.epa.gov/NATA/>

- 3) Alton, IL – Alton is home to St. Anthony’s Hospital (address: One St. Anthony W Way). St. Anthony’s Hospital self-reported 100 pounds of EtO emissions to the Toxics Release Inventory (TRI) database<sup>8</sup> in 2014. We are not certain if St. Anthony’s Hospital is currently using/emitting EtO as self-reporting to the TRI is not required of hospitals. However, if St. Anthony’s Hospital is currently emitting ethylene oxide in the air, inclusion in the study is certain to impact EtO ambient averages across the state.

Stop EtO proposes to replace the locations of Northbrook, Schiller Park, and Alton for EtO air monitoring with the following 3 locations:

- Zion, IL
- Lisle, IL Wheaton
- 7801 Lawndale, Chicago, IL (urban)

All three sites are currently used by the IL EPA for air quality monitoring<sup>9</sup>, so a change to these locations would not result in any cost burden to the state. These sites would provide complimentary data to the data set already acquired to date from the US EPA National Study (that has already included Northbrook and Schiller Park) and EtO testing that has been performed in DuPage and Lake County IL. The Zion and Lisle sites would provide helpful updates on what is currently going on in DuPage and Lake County, respectively. The 7801 Lawndale, Chicago, IL site is not directly adjacent to any major interstate highways and would provide data from a different region of Chicago. This location would offer a better understanding of what typical Chicago residents experience, versus the Schiller Park site that is skewed due to the close proximity to O'Hare airport and many major highways.

The IEPA is proposing only 6-months' worth of EtO ambient air monitoring. A full year of testing is preferable in order to calculate background EtO levels during all seasons. At a minimum, the period of testing should cover as wide a range of seasonality as possible. In particular, ambient background testing done primarily in winter months – when EtO levels are typically higher – will artificially skew the background levels. This was a concern raised by the recent October – March testing done by the US EPA. As such, Stop EtO requests for EtO ambient air monitoring to be done for a full year, instead of 6-months.

In conclusion, Stop EtO thanks this Board for considering our suggestions. We strongly recommend that Northbrook, Schiller Park, and Alton, IL be excluded from the list of locations for IL EPA EtO ambient air monitoring. We are presenting this Board with alternative locations, which will not drive up EtO ambient air level averages artificially due to their known EtO emitters nearby. In addition, we request that air monitoring be done for a span of 1-full calendar year, encompassing all seasons.

We thank you in advance for considering our requests and preserving our environment.

Respectfully,

*Stop EtO* members

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