

ILLINOIS POLLUTION CONTROL BOARD
March 12, 2020

IN THE MATTER OF:

PROPOSED NEW 35 ILL. ADM. CODE)	R20-18
249)	(Rulemaking - Air)
ETHYLENE OXIDE AMBIENT AIR)	
MONITORING)	

HEARING OFFICER ORDER

On December 17, 2019, the Illinois Environmental Protection Agency (IEPA) filed a proposal to add new Part 250 to the Board's air pollution regulations. The Board adopted IEPA's proposal to first notice under new Part 249 without commenting on the substantive merits of the proposal. The hearing officer scheduled first hearing in this proceeding on March 26, 2020 with prefiling deadlines of February 27, 2020 for testimony, and March 12, 2020 for questions.

The Board and Staff have reviewed the proposed rules, supporting documents and IEPA's testimony filed on February 27, 2020, and submit with this order their questions to IEPA, included as Attachment A. Anyone may file a comment, and anyone may respond to the attached questions, as well as any other pre-filed questions in the record.

All filings in this proceeding will be available on the Board's website at <https://pcb.illinois.gov/> in the rulemaking docket [R20-18](#). Unless the Board, hearing officer, Clerk, or procedural rules provide otherwise, all documents in this proceeding must be filed electronically through the [Clerk's Office On-Line](#). 35 Ill. Adm. Code 101.302(h), 101.1000(c), 101.Subpart J.

IT IS SO ORDERED.



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ATTACHMENT A
R20-18
PROPOSED NEW 35 ILL. ADM. CODE 249, ETHYLENE OXIDE AMBIENT AIR
MONITORING

Questions for IEPA

Technical Support Document (TSD)

1. On page 5, TSD states that the “Act requires the Agency to conduct air testing to determine ambient levels of ethylene oxide throughout the State, and to submit rules for such ambient air testing..”
 - a. Please clarify whether ambient levels determined under the proposed rule will represent the background concentrations of ETO where air quality is not impacted by the permitted ETO emitting sources.
 - b. If not, explain what ambient ETO levels mean in the context of the proposed rules.
2. On page 6, TSD notes that the “Illinois monitoring sites in the proposed rule are currently in use by the Agency for the purposes of ambient air monitoring and are adequate to provide the Agency and the public with information about ambient levels of ethylene oxide throughout the State.”
 - a. Please explain how the 6-month sampling results at the five locations will be translated to ambient levels of ETO throughout the state.
 - b. Comment on whether the ambient levels would be determined for each county or on broader regional basis.
3. On page 6, TSD notes that Table 1 lists information regarding each of the proposed monitoring site's distance from a known emission source of ETO, as well as from major highways.
 - a. Please clarify whether Table 1 lists all permitted ETO emitting sources within the state. If not, please update the table to include other sources and their distance from the nearest monitor location and major highways.

- b. Please update the ETO monitoring location map (Figure 1) to show all ambient monitors used by IEPA for monitoring criteria pollutants, as well as all permitted ETO emitting sources.
4. On page 8, TSD states that the ETO sampling would be conducted for a period of six months by taking air samples every 12 days with 15 samples being taken at each site.
 - a. Please comment on the sources of uncertainty and errors associated with the sampling of ETO and clarify whether the proposed sampling frequency and the number of samples at each site are adequate to minimize such errors and uncertainty. Comment on whether doubling the sampling period to 12 months would increase the confidence level of the data.
 - b. Please clarify whether the proposed 6-months sampling period is adequate to address spatial and temporal variability. In this regard, comment on whether sampling period of at least 12 months is necessary to account for seasonal variations and weather factors.
5. On page 8, TSD states that the USEPA Method TO-15, Determination of Volatile Organic Compounds (VOCs) would be used to analyze the air monitoring samples for ETO.
 - a. Please clarify whether the Method TO-15 is a Federal Reference or Equivalent Method (FRM or FEM). If so, is Method TO-15 on the List of Designated Methods incorporated by reference in 35 Ill. Adm. Code 243.108.
 - b. Please comment on whether the proposed rules under Section 249.110 must require the use of USEPA Method TO-15 for analyzing air monitoring samples for ethylene oxide.
 - c. Also, clarify whether any federal guidance and requirements pertaining to quality assurance protocols will be followed during the sampling and analysis. Please comment on whether the proposed rules should address quality assurance and quality control protocols.
6. On page 8, TSD notes, “Method TO-15 begins with collecting atmospheric samples into a specially-prepared stainless steel canister using a sampling train that regulates the rate and duration of the sampling.” Please clarify the duration of sampling at each sampling event and comment on whether the sample is considered as a composite sample.
7. On pages 8 and 9, TSD states, “the rule as proposed can be implemented without economic burden to any entity in the State except for the Illinois EPA, and the Agency

considers the costs associated with the monitoring requirements as proposed to be reasonable to meet the requirements set forth in the Act.”

- a. Please provide a cost estimate for implementing the proposed ETO monitoring requirements.
- b. Comment on whether the cost would double if the sampling period is increased from 6 to 12 months, if required to address spatial and temporal variations.
- c. Would the Agency consider the increased monitoring costs to be still reasonable to meet the requirements of the Act?

Proposed Rules

8. Section 249.110(a) requires each ethylene oxide sample to be taken over a period of approximately 24 hours. Please clarify whether the sample is taken continuously over the 24-hour period. Also, explain why the term” approximately” is used instead of requiring each sample to be taken over a period of 24 hours.
9. Section 249.110(c) requires the Agency to “comply with all applicable USEPA guidelines for ambient air monitoring.”
 - a. Please provide a list USEPA guidelines that apply ambient air monitoring.
 - a. Does the Agency consider USEPA Method TO-15 Determination of Volatile Organic Compounds (VOCs) in Air as an applicable guideline?
 - b. Comment on whether any of the USEPA guidelines should be incorporated by reference.
10. Please comment on whether the following changes to the rule language are acceptable to IEPA:

Section 249.100 Purpose

The purpose of this Part is to specify set forth the procedures and requirements that must be used by manner in which the Agency shall to conduct ambient air monitoring of ethylene oxide under in accordance with the requirements in Section 9-.16 (text from P.A. 101-22) of the Environmental Protection Act (415 ILCS 5/9.16, P.A. 101-22).

Section 249.105 Monitoring Locations

The Agency ~~must shall~~ monitor ~~levels of ethylene oxide levels~~ in the ambient air in or around the following locations in Illinois ~~under in accordance with~~ the requirements set forth in ~~of s~~Section 249~~50~~.110:

- a) Northbrook;
- b) Schiller Park;
- c) Nilwood;
- d) Alton; and
- e) Bondville.

Section 249.110 Ethylene Oxide Ambient Air Monitoring Requirements

- a) The Agency ~~must shall~~ conduct ambient air monitoring for ethylene oxide in or around each location specified in Section 249~~50~~.105 for a period of six consecutive calendar months. During that time frame, the Agency ~~must shall~~ collect a sample every 12 days. Each sample ~~shall must~~ be collected over a period of ~~approximately~~ 24 hours.
- b) The six-month monitoring period ~~must shall~~ commence no later than one year after the effective date of this Part.
- c) The Agency ~~must shall~~ comply with all applicable USEPA guidelines for ambient air monitoring.

Section 249.115 Monitoring Results

The Agency ~~must shall~~ make the ethylene oxide ambient air monitoring results publicly available on the Agency's website within 30 days of receipt of each set of quality assured data.

Section 249.120 Sunset Provisions

The provisions of this Part ~~will shall~~ no longer apply 24 months after the effective date of this Part.