

# 2026 Proposed Real-time Fenceline Air Monitoring Legislation

## Technical Requirements

01/15/2026

- **Applicability:** Industrial facilities that meet the following criteria:
  - Facilities permitted by the Louisiana Department of Environmental Quality (LDEQ) that are covered by one of the following North American Industry Classification System codes:
    - NAICS 324110, "Petroleum Refineries "
    - NAICS 325, "Chemical Manufacturing"
  - Facilities with 2021 reported annual emissions greater than 50 pounds of one or more of the 17 "high risk" toxic air pollutants (TAPs) identified in Table 1.
- **"Air Monitoring System"** is defined as a combination of equipment that continuously measures, records, and reports real-time toxic air pollutant concentrations at or near the facility's property boundary. The "Air Monitoring System" shall meet the following requirements:
  - Use "optical remote sensing technology" to continuously monitor and record routine operations emissions and unplanned releases of Table 1 TAPs along an open path at or adjacent to the property boundaries.
  - Collect, process, and automatically disseminate continuous, real-time as well as long-term TAP concentration levels, variations, and trends through a user-friendly, publicly accessible website.
  - Generate and automatically disseminate real-time "alerts" to appropriate first responders, LDEQ, potentially impacted downwind municipalities and community members, and any other people who "register" to receive the alerts.
  - Alerts should be disseminated anytime the rolling 1-hour averaged TAP concentration(s) exceed the Table 1 Acute Exposure Threshold.
- The fenceline monitoring system shall also include an on-site recording weather station capable of continuously measuring ambient temperature, wind speed, wind direction, and relative humidity.
- **Air Monitoring System Costs:** Each covered facility should be responsible for the monitoring system purchase, installation, operation, and maintenance cost as well as all LDEQ costs associated with review and approval of written plans, quarterly data report, annual compliance determinations, and monitoring and responding to real-time TAP monitoring data.
- **Air Monitoring Equipment Alternative.** Owner or operators of covered facilities should be allowed to propose alternative equipment monitoring technologies subject to the review and approval of LDEQ. Approved alternatives should not reduce the spatial coverage or frequency of collected and publicly disseminated monitoring data.
- **Air Monitoring System Plans.** The owner or operator of a covered facility should be required to submit a written fence-line air monitoring plan to LDEQ for approval. The plan should include:
  - Equipment used to continuously monitor, record, and report Table 1 TAP concentrations along open paths covering the entire facility boundary.
  - Equipment used to measure and continuously record wind speed, direction, and other meteorological data within the boundaries of the covered facility.
  - Monitoring equipment siting locations (e.g., GIS coordinates), location and length of each open path, and open path monitoring equipment specifications (e.g., detection limits, time resolution).

- Methods for implementing quality assurance and quality control (QA/QC) of the data.
- Methods including visualization tools to graphically display continuously collected real-time and historical long-term averaged TAP data through a user-friendly, publicly available website.
- Methods and formats for community alert system notifications including communication options for registered individuals (e.g., automated text, email messages, phone call, social media, etc.)
- Air monitoring system maintenance schedules and provisions, including temporary back-up measures to be implemented in case of equipment or power failures.
- Air monitoring system installation and implementation schedule.
- **Recordkeeping, Reporting Requirements.** The owner/operator of covered facilities should be required:
  - To submit quarterly reports to LDEQ summarizing the real-time and long-term averaged TAP measurements, data completeness, and quality assurance. The reports shall be submitted in an electronic format specified by LDEQ.
  - To retain air monitoring system data on-site and available for LDEQ inspection for five years.
- **LDEQ Requirements.**
  - Develop regulations or guidance to assist covered facilities with development and submission of fence-line monitoring written plans.
  - Expeditiously review and approve/disapprove submitted written plans.
  - Develop guidance including required formats for electronically submitted quarterly reports.
  - Periodically review and revise, if needed, list of Covered high-risk TAPs and Covered Facilities, based on peer reviewed scientific toxicity studies or future serious accidental chemical release events among Louisiana Industrial Facilities.

**Prepared by the Fence-line Air Monitoring Technical Team:**

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**Table 1.**

| <b>Louisiana Fenceline Monitoring<br/>High Risk Pollutants</b> |  |  |
|--|--|--|
| <b>Pollutant<sup>a</sup></b>                                   | <b>Acute Exposure<br/>Threshold<sup>c</sup> (µg/m<sup>3</sup>)</b> | <b>Chronic Exposure<br/>Threshold<sup>d</sup> (µg/m<sup>3</sup>)</b> |
| <b>Ammonia<sup>b</sup></b>                                     | 3,200  | 200  |
| <b>Benzene</b>   | 27   | 3  |
| <b>1,3-butadiene</b>   | 660  | 2  |
| <b>Chlorine<sup>b</sup></b>                                    | 210  | 0.2  |
| <b>Ethylbenzene</b>  | -----  | 2,000  |
| <b>Ethylene Dichloride</b>                                     | -----  | 400  |
| <b>Diethanolamine</b>  | -----  | 3  |
| <b>Ethylene Oxide</b>  | ----   | 30   |
| <b>Formaldehyde</b>  | 55   | 9  |
| <b>Hydrogen Cyanide</b>  | 340  | 9  |
| <b>Hydrogen Fluoride</b>                                       | 240  | 14   |
| <b>Hydrogen Sulfide</b>  | 42   | 42   |
| <b>Naphthalene</b>   | ----   | 9  |
| <b>Sulfur Dioxide</b>  | 660  | ----   |
| <b>Toluene</b>   | 37,000   | 300  |
| <b>Vinyl Chloride</b>  | 180,000  | 100  |
| <b>Xylenes</b>   | 22,000   | 700  |

<sup>a</sup> Excluded chloroprene, PAHs (No acute or chronic Reference Exposure Level)

<sup>b</sup> Pollutant added based on toxicity, total emissions, frequent serious accidental Louisiana release incidents.

<sup>c</sup> Acute exposure threshold time period is rolling 1-hour average.

<sup>d</sup> Chronic exposure threshold time period is rolling 12 months average designed to address increased cancer risks based continuous exposures for up to a lifetime.