TCEQ REGULATORY GUIDANCE
Air Permits Division
RG-645 ● Revised April 2024

Legally and Practicably Enforceable (LPE) Criteria Guidance

Overview

This document provides guidance on LPE Criteria for a single storage vessel or tank battery under New Source Performance Standards (NSPS) OOOOb for the Oil and Natural Gas Sector. Establishing LPE criteria as part of the authorization record is a voluntary decision by the owner/operator to avoid applicability of the standards in NSPS OOOOb.

For purposes of determining the applicability of a storage vessel tank battery as an affected facility, a LPE limit must include the following criteria as defined under 40 Code of Federal Regulations §60.5365b(e)(2).

(A) A quantitative production limit and quantitative operational limit(s) for the equipment, or quantitative operational limits for the equipment;

(B) An averaging time period for the production limit in (e)(2)(i)(A), if a production-based limit is used, that is equal to or less than 30 days;

(C) Established parametric limits for the production and/or operational limit(s) in (e)(1)(i)(A), and where a control device is used to achieve an operational limit, an initial compliance demonstration (i.e., performance test) for the control device that establishes the parametric limits;

(D) Ongoing monitoring of the parametric limits in (e)(2)(i)(C) that demonstrates continuous compliance with the production and/or operational limit(s) in (e)(2)(i)(A);

(E) Recordkeeping by the owner or operator that demonstrates continuous compliance with the limit(s) in (e)(2)(i)(A) through (D); and

(F) Periodic reporting that demonstrates continuous compliance.

Affected Facilities and Potential to Emit (PTE)

An affected facility under NSPS OOOOb is a single storage vessel or tank battery with a PTE of 6 tons per year (tpy) or more of VOC or a PTE of 20 tpy or more of methane. An affected facility that subsequently decreases its PTE to less than 6 tpy of VOC remains an affected facility. The PTE of a facility may include requirements under a legally and practicably enforceable limit.

Storage vessels that are connected by a line for liquid transfer are considered a tank battery (the head space is not required to be manifolded). Determining PTE:

- If located at a well site or centralized production facility, determine PTE within 30 days after start of production or within 30 days after reconstruction or modification based on the maximum average daily throughput to the tank battery determined for a 30-day period of production.
- If located elsewhere, including at a compressor station or a gas plant, determine PTE prior to startup of the facility or within 30 days after reconstruction or modification based on throughput of the tank battery established under a LPE limit or based on maximum average daily throughput.

Any vapor that is recovered and routed to a process is not required to be included in the PTE determination provided that cover and closed vent system requirements and recordkeeping are met. Note that storage vessels equipped with floating roofs are subject to NSPS Kb requirements instead.

Representations of LPE Criteria

TCEQ Form LPE-CERT can be used by owners/operators to establish LPE representations for their oil and gas facility. The LPE-CERT form is not intended to update permit representations; instead, the form should be used to supplement permit representations for the purposes of NSPS OOOOb. For example, if an owner/operator needs to update control device information, such as the destruction/removal efficiency (DRE), then a revision or amendment to the existing air authorization will need to be submitted.

As part of the LPE-CERT form, the owner/operator will need to provide supplemental documentation to support the LPE limits being certified. Documentation must include emission calculations to support the VOC and methane limits being certified. The supplemental information may also include control device information, such as manufacturer information and testing reports.

Periodic Monitoring (PM) and Continuous Monitoring

Appropriate periodic monitoring (PM) or continuous monitoring must be provided as part of the LPE-CERT form to address ongoing parametric monitoring for demonstrating continuous compliance with any quantitative production and/or operational limit(s). The monitoring demonstration (which consists of recordkeeping) should include a monitoring plan that is sufficient to yield reliable data from the relevant time period that are representative of the storage vessel tank battery's compliance with the LPE limit(s), and should include testing, recordkeeping, and reporting that is sufficient to assure compliance with the LPE limit(s).

Examples of periodic monitoring are included in Table 1 of this document. These examples are excerpts from the TCEQ Periodic Monitoring (PM) Guidance (APDG 5241, 10/2008) document found on the Air Federal Operating Permits and Permit Revisions Guidance (Title V) page.

Other examples of monitoring for control devices can be found in the TCEQ Control Device Requirements Charts document found on the Air Quality Standard Permit for Oil and Gas Handling and Production Facilities page.

Periodic Reporting

A reporting form will be available later this year by TCEQ for owner and operators to submit their data starting with calendar year 2024. Owners and operators will be required to submit the form annually by April 15th to report their data for the previous calendar year.

Contact

For additional assistance on LPE criteria, please contact TCEQ Air Permits Division at 512-239-1250, or at airperm@tceq.texas.gov.

Table 1. Examples of Periodic Monitoring

Note: These PM requirements are provided for informational purposes only and may not be conclusive of what is required to establish a LPE limit.

Flare:

Indicator Monitored	Periodic Monitoring Requirement	Minimum Frequency
Pilot Flame	Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with manufacturer's specifications or other written procedures.	once per hour
Visible Emissions	Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed the permit holder shall determine visible emissions consistent with Test Method 22 or Test Method 9.	once per day
Inlet Flow Rate, and	Measure and record the inlet flow rate. Establish a maximum inlet flow rate using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with manufacturer's specifications or other written procedures.	once per week

Flare *(continued)*:

Indicator Monitored	Periodic Monitoring Requirement	Minimum Frequency
Net Heating Value	Calculate and record the net heating value of the gas being combusted using the procedures and specifications of 40 CFR § 60.18(f)(3). The sample points should be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. he minimum net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) for steam assisted or air assisted flares. The minimum net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) for non-assisted flares. The minimum net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf) for steam-assisted and non-assisted flares designed for and operated with an exit velocity equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec).	once per week

Table 1. (continued)

Thermal Incinerator (Direct Flame Incinerator/Regenerative Thermal Oxidizer) or Vapor Combustor:

Indicator Monitored	Periodic Monitoring Requirement	Minimum Frequency
VOC Concentration	Measure and record the VOC concentration using a portable analyzer to monitor VOC concentration at the outlet of the control device. The monitoring device shall meet the requirements of 40 CFR Part 60, Appendix A, Method 21, Sections 2, 3, 4.1, 4.2, and 4.4. However, the words “leak definition” in Method 21 shall be the outlet concentration. Establish a maximum VOC concentration using the most recent performance test, manufacturer’s recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained and operated in accordance with manufacturer’s specifications or other written procedures.	monthly
	Measure and record the concentration of organic compounds in the exhaust stream with a continuous emission monitoring system (CEMS). The CEMS shall be operated in accordance with 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B). Establish a maximum VOC concentration using the most recent performance test, manufacturer’s recommendations, engineering calculations, and/or historical data.	four times per hour, averaged hourly
Combustion Temperature/ Exhaust Gas Temperature	Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. Establish a minimum combustion temperature using the most recent performance test, manufacturer’s recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with manufacturer’s specifications or other written procedures.	once per week