

TITLE 252. DEPARTMENT OF ENVIRONMENTAL QUALITY CHAPTER 100. AIR POLLUTION CONTROL

SUBCHAPTER 7. PERMITS FOR MINOR FACILITIES

PART 9. PERMITS BY RULE

252:100-7-60.5. Oil and natural gas sector

(a) **Applicability.** This PBR is issued for minor facilities and area sources in the oil and natural gas (O&NG) sector. This includes but is not limited to facilities subject to federal standards, primarily Subparts IIII, JJJJ, OOOO, ~~and OOOOa, and OOOOb~~ of the federal NSPS, 40 CFR Part 60, and Subparts HH and ZZZZ of the federal NESHAP, 40 CFR Part 63, as cited in this PBR and incorporated by reference in OAC 252:100-2 and Appendix Q to Chapter 100. Specifically, this PBR applies to the following:

(1) **Eligible minor facilities and area sources.** New and existing minor facilities and area sources in the O&NG sector are eligible for this PBR, provided they comply with the conditions in (A) through (G) of this paragraph.

(A) The facility has actual emissions of 40 TPY or less of each regulated air pollutant, except HAPs and GHGs.

(B) The facility has potential emissions of each regulated air pollutant, except HAPs, that are less than the emission levels that require prevention of significant deterioration (PSD), nonattainment new source review (NNSR), and Part 70 permits.

(C) The facility does not emit or have potential emissions of 10 TPY or more of any single HAP or 25 TPY or more of any combination of HAPs.

(D) For the purpose of determining if a facility is eligible for registration under this PBR, the calculation of actual emissions may include emission reductions that will be made enforceable by registration under this PBR.

(E) Only for the purpose of determining if a facility is eligible for registration under this PBR, the calculation of potential emissions shall not include emission reductions resulting from any physical or operational limitation (including capacity limitations, use of air pollution control equipment, and/or restrictions on hours of operation or on the type or amount of material combusted, stored, or processed). ~~Affected~~ However, affected sources or potentially affected sources subject to a federal standard (NSPS or NESHAP) may include enforceable limitations imposed by the federal standards in the calculation of potential emissions.

(F) The facility must meet the criteria in 252:100-7-15(b)(1)(C) through (E).

(G) The facility is not otherwise a Part 70 source.

(2) **Equipment and processes.** This PBR covers equipment and processes located at minor facilities and area sources in the O&NG sector that meet the criteria contained in 252:100-7-60.5(a)(1). Covered equipment and processes under this PBR include, but are not limited to:

(A) The affected facilities listed in 40 CFR Section 60.5365 of NSPS Subpart OOOO, ~~and~~ 40 CFR Section 60.5365a of NSPS Subpart OOOOa, and 40 CFR Section 60.5365b of NSPS Subpart OOOOb.

(B) Stationary compression ignition internal combustion engines, as specified in 40 CFR Section 60.4200 of NSPS Subpart IIII, which are located at minor facilities in the O&NG sector.

(C) Stationary spark ignition internal combustion engines, as specified in 40 CFR Section 60.4230 of NSPS Subpart JJJJ, which are located at minor facilities in the O&NG sector.

(D) The affected sources listed in 40 CFR Section 63.760(a) and (b)(2) of NESHAP Subpart HH, which are located at area sources.

(E) Stationary reciprocating internal combustion engines (RICE), as specified in 40 CFR Section 63.6585 of NESHAP Subpart ZZZZ, which are located at area sources in the O&NG sector.

(b) Standards and requirements.

(1) **NSPS and NESHAP requirements.** The owner or operator shall meet the applicable requirements of the following NSPS and NESHAP subparts for equipment and processes located at minor facilities or area sources in the O&NG sector.

(A) **General provisions.** The owner or operator of minor affected facilities covered by the O&NG PBR shall comply with applicable requirements of 40 CFR 60, Subpart A.

(B) **Crude oil and natural gas production, transmission, and distribution.** The owner or operator of each minor affected facility shall comply with the applicable standards and requirements of 40 CFR Part 60, Subparts OOOO, ~~and/or OOOOa, and/or OOOOb.~~

(C) **Stationary compression ignition internal combustion engines.** The owner or operator of a stationary compression ignition internal combustion engine shall comply with the applicable emission, equipment, and work practice standards and testing, reporting monitoring, and recordkeeping requirements of 40 CFR Part 60, Subpart IIII.

(D) **Stationary spark ignition internal combustion engine.** The owner or operator of a stationary spark ignition internal combustion engine shall comply with the applicable emission, equipment, and work practice standards and testing, reporting, monitoring, and recordkeeping requirements of 40 CFR Part 60, Subpart JJJJ.

(E) **General provisions.** The owner or operator of an area source covered by the O&NG PBR shall comply with applicable requirements of 40 CFR Part 63, Subpart A.

(F) **Oil and natural gas production facilities.** The owner or operator of an affected source listed in 40 CFR Section 63.760(a) and (b) and located at an area source shall comply with the applicable emission, equipment, and work practice standards and testing, reporting, monitoring, and recordkeeping requirements of 40 CFR Part 63, Subpart HH.

(G) **Stationary reciprocating internal combustion engines.** The owner or operator of a stationary RICE located at an area source shall comply with the applicable emission, equipment, and work practice standards and testing, reporting, monitoring, and recordkeeping requirements of 40 CFR Part 63, Subpart ZZZZ.

(H) **Equipment subject to any other NSPS or NESHAP.** The owner or operator of the facility shall comply with the applicable emission, equipment, and work practice standards and testing, reporting, monitoring, and recordkeeping requirements of any other applicable NSPS or NESHAP, including any modification to requirements of an existing applicable NSPS or NESHAP.

(2) **DEQ Air Pollution Control Rules, standards, and requirements.** The owner or operator of an O&NG facility covered by this PBR shall comply with applicable portions of the:

(A) emission inventory requirements and annual fee requirements contained in 252:100- 5;

(B) excess emission reporting requirements contained in 252:100-9;

(C) particulate matter emission rates contained in 252:100-19 for fuel-burning equipment;

(D) visible emissions (opacity) limits contained in 252:100-25 for subject emission units;

(E) fugitive dust standards contained in 252:100-29;

(F) standards and requirements for the control of the emission of sulfur compounds contained in 252:100-31 for subject emission units;

(G) standards and requirements for the control of the emission of nitrogen oxides contained in 252:100-33 for subject fuel-burning equipment;

(H) standards and requirements for the control of the emission of VOCs contained in 252:100-37 and 252:100-39 for subject emission units; and

(I) testing, monitoring, and recordkeeping requirements contained in 252:100-43.

(c) **Requested process-specific limitations - storage vessel affected facilities.** An owner or operator shall designate on the PBR registration form(s) that either of the following federally enforceable limits are applicable to a specified storage vessel affected facility. The permittee shall submit a notice of enforceability on forms provided by the DEQ to add or remove the applicability of federally enforceable limits to or from any specific emission unit.

(1) The storage vessel affected facility shall be limited to less than 6 TPY of VOC emissions, 12-month rolling total, unless another time measurement is specified under 40 CFR Part 60, Subpart OOOO or OOOOa. Demonstration of compliance with the VOC emission limit shall be based on records of VOC stored and monthly throughputs. Emissions shall be calculated using current EPA AP-42 methodology for working and breathing emissions or other methodology acceptable to the DEQ, and using available AQD guidance for flash emissions.

(A) In the demonstration of compliance with the VOC emission limit, a properly installed and operated vapor recovery unit (VRU) is considered to recover 100% of the VOC during the time the VRU is in use.

(B) The permittee shall maintain, for a period of five (5) years, records of VOC stored, monthly throughputs, and emissions calculations used to demonstrate compliance, including records of all periods of uncontrolled venting.

(2) The VOC storage vessel shall be limited to less than 6 TPY of VOC emissions, 12-month rolling total, unless another time measurement is specified under 40 CFR Part 60, Subpart OOOO or OOOOa. For any VOCs not routed through a VRU, the storage vessel affected facility shall be controlled utilizing a flare or enclosed combustion device.

(A) For each flare or enclosed combustion device, the presence of a pilot flame shall be monitored using a thermocouple or any other equivalent device, and records of pilot flame(s) outages and/or flare downtime shall be maintained.

(B) The flare or enclosed combustion device shall be operated according to the manufacturer's specifications.

(C) Demonstration of compliance with the VOC emission limit shall be based on emissions calculated from records of VOC stored and monthly throughputs using current EPA AP42 methodology for working and breathing emissions or other methodology acceptable to the DEQ, AQD guidance for flash emissions, and a VOC control efficiency as specified.

(i) During periods when records document that the flare or enclosed combustion device was operational, the VOC emissions estimates may be calculated using a VOC destruction efficiency of 95%.

(ii) If the manufacturer of the flare or enclosed combustion device guarantees a VOC destruction efficiency greater than 95%, the VOC emissions estimates may be calculated using the VOC destruction efficiency guaranteed by the manufacturer, up to but not to exceed 99.5% during periods when records document that the control device was operational.

(iii) A properly installed and operated VRU is considered to recover 100% of the VOC during the time the VRU is in use.

(iv) The permittee shall maintain, for a period of five (5) years, records of VOC stored, monthly throughputs, and emissions calculations used to demonstrate compliance, including records of all periods of uncontrolled venting.

(d) Requested process-specific legally and practicably enforceable limitations - storage vessel affected facilities (tank batteries). An owner or operator shall designate on the PBR registration form(s) that the following legally and practicably enforceable (LPE) limits are applicable to a specified storage vessel affected facility under 40 CFR Part 60, Subpart OOOOb. The permittee shall submit a notice of enforceability on forms provided by the DEQ to add or remove the applicability of LPE limits to or from any tank battery, whether the tank battery consists of a single storage vessel or multiple storage vessels that are manifolded together for liquid transfer.

(1) The storage vessel affected facility shall be limited to less than 6 TPY of VOC emissions and less than 20 TPY of methane emissions, calculated as cumulative emissions from all storage vessels within the tank battery, with both limits based on a 12-month rolling total.

(A) Demonstration of compliance with the VOC and methane emission limits shall include the following:

(i) A monthly quantitative throughput volume.

(ii) The composition of tank contents and any process stream (actual or representative consistent with DEQ policy as established by the Director) necessary to perform the calculations below.

(iii) Emission calculation methods for working, breathing, and flashing emissions approved by the Director.

(iv) Process operating parameters, including temperatures and pressures relied on in the compliance calculations.

(v) The method, if any, used to capture emissions, and divert emissions to a process and/or route emissions to a control device.

(vi) Calculations showing that, given the tank contents, throughput, and process operating parameters (including downtime), the emissions from the tank battery will not exceed the LPE limits for VOC or methane.

(B) Applicants that elect to comply with the LPE limits through one or more of the following options shall meet these operational and parametric limits:

(i) If using a nonassisted flare:

(I) a closed vent system that routes emissions from the storage vessel affected facility to the flare.

(II) a combustion destruction efficiency of at least 95%.

(III) the flare shall meet the following applicable requirements of 40 CFR § 60.18: visible emissions requirements in § 60.18(c)(1); the pilot flame requirements in § 60.18(c)(2); the heating value requirements in § 60.18(c)(3)(ii); exit velocity requirements in § 60.18(c)(4); and the operational requirements in § 60.18(e).

(ii) If using a nonassisted enclosed combustion device:

(I) a closed vent system that routes emissions from the storage vessel affected facility to the combustor.

(II) a combustion destruction efficiency of at least 95%.

(III) the combustor shall meet the following applicable requirements for flares in 40 CFR § 60.18: visible emissions requirements in § 60.18(c)(1); the pilot flame

requirements in § 60.18(c)(2); the heating value requirements in § 60.18(c)(3)(ii); and the operational requirements in § 60.18(e).

(IV) the maximum design capacity (MMBTU/hr) of the gases combusted as established by the manufacturer or operator during a performance test.

(iii) If using a VRU:

(I) a closed vent system that captures all emissions from the storage vessel affected facility and routes all emissions to a process.

(II) the openings of the storage vessels shall be closed and sealed (e.g., covered by a gasketed lid, cap, or other appropriate methods) during normal operation.

(C) The emission reductions associated with the option(s) selected under (B) shall only be included in emissions calculations to show compliance with limits in (1) above when the following initial and periodic and/or continuous monitoring requirements are met:

(i) If using a nonassisted flare or enclosed combustion device:

(I) perform an initial visible emission observation of the flare or enclosed combustion device using Method 22 in Appendix A of 40 CFR Part 60, with a minimum observation time of six (6) minutes, within 60 days of initial operation.

(II) continuously monitor at least once every five minutes for the presence of a pilot flame or combustion flame using a device (including, but not limited to, a thermocouple, ultraviolet beam sensor, or infrared sensor) capable of detecting that the pilot or combustion flame is present at all times. An alert must be sent whenever the pilot or combustion flame is unlit.

(III) perform an initial, and semi-annually thereafter, determination of the net heating value of the gasses combusted using the equation in 40 CFR § 60.18(f)(3), GPA Method 2261, or other approved method.

(IV) for a flare, perform an initial, and semi-annually thereafter, determination of the exit velocity of the gasses combusted, calculated by dividing the volumetric flowrate by the unobstructed (free) cross sectional area of the flare tip. Volumetric flowrate shall be determined by Method 2 in Appendix A of 40 CFR Part 60, or a generally accepted model or calculation methodology.

(V) for an enclosed combustion device, perform an initial, and semi-annually thereafter, demonstration that the actual heat content (MMBTU/hr) of the gases combusted are within the design values established by the manufacturer or operator during a performance test. The heat content of the combusted gases shall be determined by a generally accepted model or calculation methodology.

(VI) whenever the closed vent system, flare, or enclosed combustion device experiences outages and/or downtime, maintain calculations of associated emissions for the purpose of determining compliance with the limits in paragraph (1).

(ii) If using a VRU, whenever the closed vent system and/or VRU experiences outages and/or downtime, maintain calculations of associated emissions for the purpose of determining compliance with the limits in paragraph (1).

(D) Reporting of any exceedances of these limits in accordance with DEQ guidance.

(E) Recordkeeping updated monthly and maintained for a period of five (5) years, including:

(i) Records of contents stored,

(ii) Monthly and 12-month rolling total throughputs,

- (iii) Records of parameters monitored as required in subparagraphs (A) and (B) above,
- (iv) Monthly and 12-month rolling total emissions calculations used to demonstrate compliance,
- (v) Times and emissions when the system used to comply with the LPE limits is not operating in accordance with the requirements established in this subsection,
- (vi) Records of all periods of uncontrolled venting, and
- (vii) Equipment specifications, manuals, and/or maintenance records, as appropriate.

(2) [RESERVED]

(e) **Exceptions to Otherwise Applicable State-Only Requirements.** When an owner or operator elects to obtain coverage under the oil and natural gas PBR (OAC 252:100-7-60.5) the following exceptions to otherwise applicable state requirements shall govern the equipment and operations covered by the PBR:

(1) GHG emissions, as an aggregate, or as individual components (e.g., methane) may be included in the facility's PBR notwithstanding the provisions of OAC 252:100-7-2.1, Minor permits for greenhouse gas (GHG) emitting facilities.

(2) Regardless of any limits on methane included in the PBR or inclusion of any reporting requirements or other provisions in the permit that may affect methane or GHG emissions, neither methane nor GHG (as an aggregate) will be considered to be regulated air pollutants for the purposes of the following:

(A) The determination of "actual emissions" from a given facility as defined in 252:100-5-1.1.

(B) The emissions inventory requirements of OAC 252:100-5-2.1.

(C) "Regulated pollutant (for fee calculation)," as defined in 252:100-5-1.1, subject to annual operating fees under OAC 252:100-5-2.2.

(D) The determination whether a facility is a "major source" as defined in OAC 252:100-8-2.

(E) The determination whether a facility is a "major stationary source" as defined in OAC 252:100-8-31 for facilities in attainment areas or in OAC 252:100-8-51 for facilities in nonattainment areas.

(F) The determination whether a facility's project is a "major modification" as defined in OAC 252:100-8-31 for facilities in attainment areas or in OAC 252:100-8-51 for facilities in nonattainment areas.

(3) These exceptions may be set aside at the discretion of the Director.