

State Air Quality Rules

Flares — 45CSR6
Air Permits — 45CSR13 (“Rule 13”)
Annual Operating Fee — 45CSR22
Road Dust — 45CSR17
Air Pollution — WV Code 22-5



Federal Regulations

- ▶ Engines (compressor, VRU, etc.) – 40CFR63 Subpart ZZZZ and 40CFR60 Subpart JJJJ
- ▶ Dehydration Units – 40CFR63 Subpart HH
- ▶ Accident Prevention – Clean Air Act 112(r)

We are here to help

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New Federal New Source Performance Standards (NSPS) 0000

This regulation (40CFR63 Subpart 0000) applies to each gas well that is hydraulically fractured/refractured after August 23, 2011, each centrifugal compressor using wet seals, each reciprocating compressor, continuous bleed natural gas-driven pneumatic controllers and storage vessels at oil and gas wells.

NSPS 0000 Exemptions:

- ▶ Storage vessels less than 6 tpy PTE VOCs
- ▶ Compressors at well pads
- ▶ Pneumatic controllers with a “continuous bleed” rate ≤ 6 scfh

US EPA has been inspecting well pads as well as other oil and gas sites for compliance with the 112(r) General Duty Clause (“GDC”). For more information go to:

[http://www.dep.wv.gov/daq/Air%20Toxics/Pages/112\(r\)-Prevention-of-Accidental-Releases-and-General-Duty-Clause.aspx](http://www.dep.wv.gov/daq/Air%20Toxics/Pages/112(r)-Prevention-of-Accidental-Releases-and-General-Duty-Clause.aspx)

Oil & Gas Well Pad Guidance

West Virginia Department of
Environmental Protection
Division of Air Quality



Air Permitting and Compliance Guide

Phone: 304-926-0475
www.dep.wv.gov/daq

Permits

- ▶ An air quality permit may be required prior to construction and operation of any air emissions units under 45CSR13 (**Rule 13**)
- ▶ DAQ has developed a new and improved oil and gas **General Permit G80-A**, which will cover a wider variety of oil and gas operations and provide better streamlining/consistency of air permits with faster timelines
- ▶ DAQ currently offers a streamlined **General Permit G70-A** for the oil and gas industry
- ▶ “Rule of thumb” for well sites that produce “**Condensate**” — **0.5 bbl or 21 gallons/day production generally** require an air permit
- ▶ Storage Tanks are considered “permanent” if they are “**intended**” to be located at a site for 180 or more consecutive days
- ▶ Air emissions units may be “**stored/received**” on-site but you may **not “install”** air emissions units prior to an air permit being issued – please contact DAQ if you have any questions

Flares/Combustors

- ▶ Permanent flares/combustors automatically require an air permit (under 45CSR6 - **Rule 6**)

Engines (compressors and generators)

- ▶ Engines greater than 500 hp may require annual emission testing
- ▶ Engines greater than or equal to 100 hp or less than or equal to 500 HP may require an initial emission test
- ▶ Engines smaller than 100 hp may require a field emission test
- ▶ If the engine is U. S. EPA certified, they are generally exempt from emission tests

Well Flowback

- ▶ Federal NSPS OOOO regulates gas wells that were hydraulically fractured/refractured on or after **August 23, 2011**
- ▶ Gas well is defined by U. S. EPA as any well drilled into shale formations (regardless of gas-to-oil ratio)
- ▶ Notification is required two (2) days prior to flow-back (e-mail to U. S. EPA and DAQ)
- ▶ “Green Completions” are required for gas wells drilled after **January 1, 2015** - gas may not be flared if the gas can be separated from liquids and a daily log is required
- ▶ Temporary flares/combustors used for flowback generally do not require an air permit (less than 30 days in 12-month period per site)

Pre-Drilling Checklist

- √ *Will I need to use a flare/combustor more than 30 days to control emissions for safety or any other reason? If yes, you are required to obtain an air permit.*
- √ *Do I expect condensate production? If yes, you need to estimate how much may be produced from using estimates from existing wells on site or “representative” (in the area) wells and how much VOCs will be emitted from the storage tanks, to determine if a permit is needed.*
- √ *Will I need an engine (VRU, compressor, etc.) at the well pad? If yes, you need to determine the horsepower required, date the engine was manufactured, whether the engine needs a catalyst installed and the air emissions from the engine, to determine if a permit is needed.*
- √ *Will I need a triethylene glycol dehydration unit? You need to get a wet gas extended analysis, estimate the expected gas production and use the maximum glycol pump(s) rate to estimate the emissions, to determine if a permit is needed.*

Potential to Emit (PTE)

- ▶ An air permit is required if the facility-wide VOC PTE is 6 lbs/hr (144 lbs/day) or greater *OR* if the benzene PTE is 1,000 lbs/year or greater
- ▶ PTE is based on 8,760 hours without controls/emission reduction limitations
- ▶ An air permit is required if a facility triggers any substantive requirement of an emissions control rule, including NSPS OOOO storage vessel controls
- ▶ Storage vessels use maximum throughput based on first 30 days of production for emission calculations¹

	Rule 13	Federal NSPS OOOO
VOC	≥6 lbs/hour facility-wide uncontrolled	≥6 TPY per storage vessel
Benzene	≥1,000 lbs/year facility-wide uncontrolled	N/A
Vapor Recovery Unit (VRU) ^{2,3}	Does “not” count toward emissions reductions for PTE	Counts towards emissions reductions from a storage vessel conditionally

¹Use maximum throughput (storage vessels) for NSPS OOOO applicability

²VRU limiting VOC emissions from storage vessels (6 tpy trigger) is required to follow conditions set forth in NSPS OOOO

³ If the VRU is removed, then the storage vessel’s VOC PTE must be redetermined within 30 days (NSPS OOOO)