



“Methane” Regulations

SEPTEMBER 9TH, 2021

RYAN DAVIS

Two Track Process



- Energy Minerals and Natural Resource Department (EMNRD)
 - New Mexico Oil Conservation Division (NMOCD)
 - Waste Prevention
- **19.15.27 NMAC** Upstream
- **19.15.27 NMAC** Midstream



- New Mexico Environment Department
 - Ozone Precursor Pollutant Regulation
- **20.2.50 NMAC**

NMOCD

Waste Prevention Rule

19.15.27 NMAC

Outline

- Rule Timeline and Resources
- Gas Capture Requirements 19.15.27.9 NMAC
 - Gas Capture Timeline
 - Gas Capture Compliance
 - Gas Capture Accounting
 - Third Party Verification
 - Gas Management Plan
- Advanced Reporting 19.15.27.8G
- Venting Flaring
 - Drilling
 - Completions
 - Production
- Performance Standards
- Measurement
- Midstream Rule 19.15.28 NMAC
- Near Term Actions

19.15.27 Venting and Flaring of Natural Gas

Methane Advisory Panel (MAP): Fall 2019

Pre-proposal Draft: July 20th, 2020

Hearing Dates: January 4th-15th, 2021

Formal OCC Adoption: March 25th, 2021

Effective Date: **May 25th, 2021**

Links:

[Final Adopted Rule](#)

[OCD News Release](#)

[Rule Summary and Round 1 FAQ's](#)

[EMNRD OCC YouTube channel](#)

[IPANM Methane Rule comments](#)

[IPANM Methane Rulemaking Links](#)

[IPANM Link to FAQ's and ACO Guidance](#)

19.15.27.9 Statewide Gas Capture

Beginning April 1, 2022

- 98% Gas Capture by December 31, 2026
- Increase of $\frac{(\text{Baseline loss}) - 2\%}{5}$

Baseline Natural Gas Capture Rate	Minimum Required Annual Natural Gas Capture Percentage Increase
90-98%	0-1.6%
80-89%	>1.6-3.6%
70-79%	>3.6-5.6%
0-69%	>5.6-19.6%

- Except for 2022 Operator must maintain 75% capture
- If **baseline** is **below 60%** operator shall submit plan to meet minimum capture requirements
- Acquisition or sale shall not affect operators gas capture
 - No later than **60 days** operator **may file written request** to modify gas capture requirements
- **Compliance plan** due **by March 30** following reporting year if operator is out of compliance
 - Division may suspend drilling activity if future compliance is not demonstrated

19.15.27.9 Statewide Gas Capture...

B. Accounting:

- Operator submit report to certify compliance by February 28

- $Gas\ Capture = \frac{Gas\ Produced - (Lost\ Gas - ALARM\ Credits)}{Gas\ Produced}$

- Advanced Leak And Repair Monitoring (**ALARM**)
 - Division to publish list of approved technology
 - Operator files application for credit
 - Isolated within 48 hrs
 - Repaired within 15 days
 - **40%** credit of volume lost
 - Additional **20%** if performed quarterly

$$Lost\ Gas = G_{prod} - G_{sold} - B_{use} - E_{mer} - O_{ffspec} - P_{nuem} - E_{well}$$

19.15.27.9 Statewide Gas Capture...

D. Natural Gas Management Plan

- Submit with APD after effective date of the rule
 - Simply plan if in compliance with gas capture
 - Operator name and OGRID
 - Well name, API, location and footage
 - Anticipated drilling, completion and first delivery dates
 - Best practices to minimize venting and flaring
 - Anticipated volumes and separation equipment sizing
 - After **April 1, 2022** Detailed plan if out of compliance
 - Anticipated volume
 - Anticipated gathering system
 - Gather Name
 - System name and location
 - Map of well and anticipate pipeline route
 - Maximum daily capacity of the system
 - Plan for connection to the system
 - Anticipated date
 - Statement of capacity availability at first delivery
 - Anticipation of other wells connecting to the system and the impact to pressure and take-away

19.15.27.9 Statewide Gas Capture...

D. Natural Gas Management Plan

- Certification of sufficient take-away capacity to take 100% of the gas produced
 - If not able to take 100%
 - Operator can shut in or submit plan for alternative beneficial use
 - Power gen on lease
 - Power gen for grid
 - Compression on lease
 - Liquids removal on lease
 - Reinjection for underground storage
 - Reinjection for temp storage
 - Reinjection for enhance oil recovery
 - Fuel cell production
 - Submit revised plan with 20 days of being aware of **capacity constraints**
 - Submit revised plan within 20 days of being aware of **gas capture non-compliance**
 - Division may **deny** APD or **conditional approve** if operator does not
 - Make certification
 - Fails to submit adequate venting and flaring plan
 - If division determines the operator will not have adequate takeaway

19.15.27.8 Venting and Flaring

- **G. Reporting of vented or flared natural gas:**

- C-129 within 15 days 50 mcf to 500 mcf
- Verbally within 24 hours if greater than 500 mcf
 - Follow up with C-129 within 15 days
- C-141 instead if release includes liquid (release already requires C-141)

- Monthly Reporting:

- October 1, 2021- **Quarterly** (Due February 15, 2022)
- 1st quarter 2022 by May 15, 2022
- **Monthly** C-115B starting April 2022

- Published on website
- Provide copy to SLO
- Notify all royalty owners

- **Categories:**

- Emergency
- Non-scheduled maintenance or malfunction
- Surface repair and maintenance
- Downhole maintenance
- Manual liquids unloading
- Storage tanks
- Lack of capacity
- Gas quality
 - N₂, H₂S, CO₂
 - O₂
- Normal Pneumatics
- Improperly closed or maintained thief hatch
- > 8 hr emergency volume
- Exploration well
- Other

19.15.27.8 Venting and Flaring

- A. Operator shall flare rather than vent
- **B. Drilling Operations:**
 - Properly-sized flare stack
 - 100 ft setback for flare from surface hole location
- **C. Completion or Recompletion Operations:**
 - Initial flowback
 - Separation flowback route to sales
 - Flare for 60 days due gas quality
 - Properly sized stack w/ auto ignitor or continuous pilot
 - Gas analysis twice per week
 - Provide gas analysis to division upon request

19.15.27.8 Venting and Flaring

- **D. Production Operations:**

- Venting or Flaring allowed:
 - Emergency or malfunction
 - Manual liquids unloading
 - Operator on-site or within 30 mins
 - Plunger lift
 - Downhole maintenance
 - Exploration well

- Other routine activities

- Gauging or sampling
- Liquid load out
- Repair and maintenance
- Normal operation of
 - gas-activated pneumatics
 - Storage tank (not including improperly closed thief hatch)
 - Dehy
 - Compression
 - Valves, flanges or connectors
- Bradenhead test
- Packer leakage test
- Production test (24 hrs)
- Gas not meeting spec (twice a week sampling)
- Commissioning (pipeline, equipment or facilities)

19.15.27.8 Venting and Flaring

- **E. Performance Standards:**

- Auto gauging system (Tanks installed after effective date of the rule)
- Flares: Auto ignitor or continuous pilot
 - Installed after effective date
 - Within 18 months if installed prior
 - Exemption for wells or facilities with less 60 mcf
- **AVO**
 - Weekly
 - Monthly on stripper wells (SI, TA'd, Inactive wells)

- **F. Measurement**

- Install measurement on wells authorized by APD issued after effective date of the rule
- Exemption for well or facility with less than 60 mcf

19.15.28 Natural Gas Gathering Systems

19.15.28.8 Operator shall not flare or vent except:

- Emergency or malfunction
- Repair and maintenance
- Normal operation of:
 - Gas-Activated pneumatics
 - Dehy
 - Compressors
 - Valves, flanges and connectors
 - Storage tanks
 - Gauging and sampling
 - Liquid load out
 - Pipeline blow down
 - Pigging
 - Purging
 - Commissioning

C. Performance Standards

- Operations plan
 - Reasonable action to prevent and minimize leaks
- Route blowdown to portable flare
 - During scheduled maintenance
 - If technically feasible during unscheduled maintenance
- Weekly AVO
- Annual monitoring of the entire length of the system

19.15.28.8 Venting and flaring

D. Reporting to upstream operators

- Written notice 14 days prior scheduled maintenance
- Verbal notification ASAP but no more than 12 hours after discovery of emergency or malfunction
 - Provide written confirmation of verbal notification within 24 hrs

E. Measurement

- Operator shall measure or estimate volumes vented, flared or used for beneficial use
- Operator shall install measurement equipment to measure vented or flared volumes
 - If metering is not practicable (low pressure, low rate) operator shall estimate volumes

19.15.28.8 Venting and flaring

F. Reporting

- C-129 within 15 days 50 mcf to 500 mcf
- Verbally within 24 hours if greater than 500 mcf
 - Follow up with C-129 within 15 days
- C-141 instead if release includes liquid (release already requires C-141)

Monthly Reporting: C-115B

Categories:

- Emergency
- Non-scheduled maintenance or malfunction
- Routine repair and maintenance
- Beneficial use
- Blowdown and purging
- Pigging
- Storage tanks
- Pneumatic devices (Gas powered)
- Improperly closed or maintained thief hatch
- Other Surface waste

19.15.28.9 Location Requirements

A. Digital GIS as-built map

- 90 days after placed into service
- 90 days after effective date for existing systems
- Update by July 31 of each year

Effective Date May 25th , 2021

- No routine flaring
- AVO
- Auto gauging on controlled tanks
- Measurement requirements on new wells
- Flare stack requirements
- File C-129 for venting or flaring events 50 mcf / 8 hrs or more
- Gas Management Plans with APD
- Advanced reporting

NMED

Ozone Precursor Rule

20.2.50 NMAC

Topics to Cover

- Rulemaking Process
- NMOGA Collaboration
- Proposed Rule Rundown
- Rulemaking Status Update
- Applicability 20.2.50.111 NMAC
- General Provisions 20.2.50.112 NMAC
- Engines and Turbines 20.2.50.113 NMAC
- Compressor Seals 20.2.50.114 NMAC
- Control Devices 20.2.50.115 NMAC
- Leaks and Fugitive Emissions 20.2.50.116 NMAC
- Liquids Unloading 20.2.50.117 NMAC
- Hydrocarbon Liquid Transfer 20.2.50.120 NMAC
- Pigging 20.2.50.121
- Pneumatic Controllers and Pumps 20.2.50.122
- Storage Tanks 20.2.50.123
- Small Business Facilities 20.2.50.124
- Produced Water Management Units 20.2.50.126
- Credible Information Presumption 20.2.50.127

20.2.50 NMAC: Oil and Gas Sector- Ozone Precursor Pollutants

Methane Advisory Panel (MAP): Fall 2019

Pre-proposal Draft: July 20th, 2020

Rulemaking Timeline

- Petition EIB **May 6th, 2021**
- Written Direct Testimony **July 28th, 2021**
- Written Rebuttal **September 7th, 2021**
- Hearing begins **September 20th, 2021**

Links:

- [New Mexico Methane Strategy](#)
- [Methane Advisory Panel](#)
- [Pre-Proposal Draft \(07/20/20\)](#)
- [Rulemaking \(EIB No. 21-27 \(R\)\)](#)

NMOGA Collaboration

- Joint Defense Agreement
- Divide and Conquer Approach
 - IPANM
 - Applicability
 - Equipment Monitoring Tag (EMT)
 - **Liquids Unloading**
 - **Pneumatics**
 - Workovers
 - **Small Business Facilities**
- Access to Materials
 - Redlines
 - Expert Reports

20.2.50.112 A. General Requirements

Equipment Monitoring Tag (EMT)

- Within 2 years of effective date
- Scannable format
- Compliance Database Report (CDR)

Monitoring Requirements

- Inspect sources monthly



20.2.50.116 Equipment Leaks (Fugitive)

AVO

- Monthly <10 bopd, 60 mcf
- Weekly >10 bopd, 60 mcf

OGI or Method 21

LDAR

- Upstream
 - Annually PTE < 2 tpy
 - Semi-annually 2 tpy > PTE < 5 tpy
 - Quarterly PTE > 5 tpy
- Midstream
 - Quarterly PTE < 25 tpy
 - Monthly PTE > 25 tpy

OGI or Method 21

- Repair Timeframe
 - Method 21: 15 days
 - OGI: 7 days

- Re-monitor
- Repair Delay
 - Next process unit shutdown

20.2.50.117 Liquid Unloading

20.2.50.117 NATURAL GAS WELL LIQUID UNLOADING:

A. Applicability: Liquid unloading operations including down-hole well maintenance events at natural gas wells are subject to the requirements of 20.2.50.117 NMAC.

B. Emission standards:

(1) The owner or operator of a natural gas well shall use best management practices during the life of the well to avoid the need for liquid unloading.

(2) The owner or operator of a natural gas well shall use the following best management practices during liquid unloading to minimize emissions, consistent with well site conditions and good engineering practices:

(a) reduce wellhead pressure before blowdown;

(b) monitor manual liquid unloading in close proximity to the well or via remote telemetry; and

(c) close well head vents to the atmosphere and return the well to normal production operation as soon as practicable.

(3) The owner or operator of a natural gas well shall use one of the following methods to reduce emissions during an unloading event:

(a) installation and use of a plunger lift;

(b) installation and use of an artificial lift engine; or

(c) installation and use of a control device.

(4) The owner or operator of a natural gas well shall install an EMT on the natural gas well in accordance with 20.2.50.112 NMAC.

20.2.50.120 Liquid Transfer

20.2.50.120 HYDROCARBON LIQUID TRANSFERS:

A. Applicability: Hydrocarbon liquid transfers located at wellhead sites, tank batteries, gathering and boosting sites, natural gas processing plants, or transmission compressor stations are subject to the requirements of 20.2.50.120 NMAC beginning one year from the effective date of this Part.

B. Emission standards:

(1) The owner or operator of a hydrocarbon liquid transfer operation shall use vapor balance, vapor recovery, or a control device to control VOC emissions by at least ninety-eight percent when transferring liquid from a storage vessel to a transfer vessel, or when transferring liquid from a transfer vessel to a storage vessel.

(2) An owner or operator using vapor balance during a liquid transfer operation shall:

(a) transfer the vapor displaced from the vessel being loaded back to the vessel being emptied via a pipe or hose connected before the start of the transfer operation;

(b) ensure that the transfer does not begin until the vapor collection and return system is properly connected;

(c) ensure that connector pipes, hoses, couplers, valves, and pressure relief devices are maintained in a leak-free condition;

(d) check the liquid and vapor line connections for proper connections before commencing the transfer operation; and

20.2.50.122 Pneumatic Controllers

Table 1 – WELLHEAD SITES, TANK BATTERIES, GATHERING AND BOOSTING FACILITIES

Total Historic Percentage of Non-Emitting Controllers	Total Required Percentage of Non-Emitting Controllers by January 1, 2024	Total Required Percentage of Non-Emitting Controllers by January 1, 2027	Total Required Percentage of Non-Emitting Controllers by January 1, 2030
> 75 %	80%	85%	90%
> 60-75 %	80%	85%	90%
> 40-60 %	65%	70%	80%
> 20-40 %	45%	70%	80%
0-20 %	25%	65%	80%

Table 2 – NATURAL GAS COMPRESSOR STATIONS AND GAS PROCESSING PLANTS

Total Historic Percentage of Non-Emitting Controllers	Total Required Percentage of Non-Emitting Controllers by January 1, 2024	Total Required Percentage of Non-Emitting Controllers by January 1, 2027	Total Required Percentage of Non-Emitting Controllers by January 1, 2030
> 75 %	80%	95%	98%
> 60-75 %	80%	95%	98%
> 40-60 %	65%	95%	98%
> 20-40 %	50%	95%	98%
0-20 %	35%	95%	98%

20.2.50.122 Pneumatic Controllers Cont..

Inventory by January 1, 2023

(vi) if after January 1, 2027, an owner or operator's remaining pneumatic controllers are not cost-effective to retrofit, the owner or operator shall submit a cost analysis of retrofitting those remaining units to the department. The department shall review the cost analysis and determine whether those units qualify for a waiver from meeting additional retrofit requirements.

20.2.50.123 Storage Vessels

20.2.50.123 STORAGE VESSELS

A. Applicability: Storage vessels with an uncontrolled PTE equal to or greater than two tpy of VOC and located at wellhead sites, tank batteries, gathering and boosting sites, natural gas processing plants, or transmission compressor stations are subject to the requirements of 20.2.50.123 NMAC.

B. Emission standards:

(1) An existing storage vessel with a PTE equal to or **greater than two tpy and less than 10 tpy** of VOC shall have a combined capture and control of VOC emissions of at least **ninety-five percent** no later than **three years after the effective date** of this Part.

(2) An existing storage vessel with a PTE equal to or greater than 10 tpy of VOC shall have a combined capture and control of VOC emissions of at least **ninety-eight percent** no later than **one year** after the effective date of this Part.

(3) A new storage vessel with a PTE equal to or greater than two tpy and less than 10 tpy of VOC shall have a combined capture and control of VOC emissions of at least ninety-five percent upon startup.

(4) A new storage vessel with a PTE equal to or greater than 10 tpy of VOC shall have a combined capture and control of VOC emissions of at least ninety-eight percent upon startup.

20.2.50.125 Small Business Facilities

OO. “**Small business facility**” means, for the purposes of this Part, a source that is independently owned or operated by a company that is not a subsidiary or a division of another business, that employs no more than **10 employees** at any time during the calendar year, and that has a **gross annual revenue** of less than **\$250,000**. Employees include part-time, temporary, or limited service workers.

- Monitoring Requirements
- Repair Requirements
- Recordkeeping Requirements
- Reporting Requirements

20.2.50.127 Credible Info Presumption

B. If credible information obtained by the department indicates that a source is not in compliance with the provisions of this Part, the source shall be presumed to be in violation of this Part unless and until the owner or operator provides credible evidence or information demonstrating otherwise.

C. If credible information provided to the department by a member of the public indicates that a source is not in compliance with the provisions of this Part, the source shall be presumed to be in violation of this Part unless and until the owner or operator provides credible evidence or information demonstrating otherwise.

Status Update:

- Hired Louis Rose with Montgomery and Andrews
- Hire Doug Blewitt
- Filed Written Testimony
 - Direct **July 28th, 2021**
 - Rebuttal **September 7th, 2021**
- IPANM Witnesses
 - Doug Blewitt (Applicability and Modeling)
 - Dave Brown (General Provisions: EMT and CDR)
 - Ryan Davis (Pneumatics, Liquids Unloading, Workovers, Small Business)
- Legal Fund:
 - Goal: \$80-120K
 - Legal Representation
 - Air Quality Expert
 - Pledged: \$116,800
 - Total Collected: **\$116,300**

Question?

Ryan Davis

rdavis@merrion.bz

505.215.3292