

OVERVIEW & RULE MAKING PROCESS

TIFFANY A. POLAK

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

JANUARY 2021

EMNRD – OCD Team Introductions

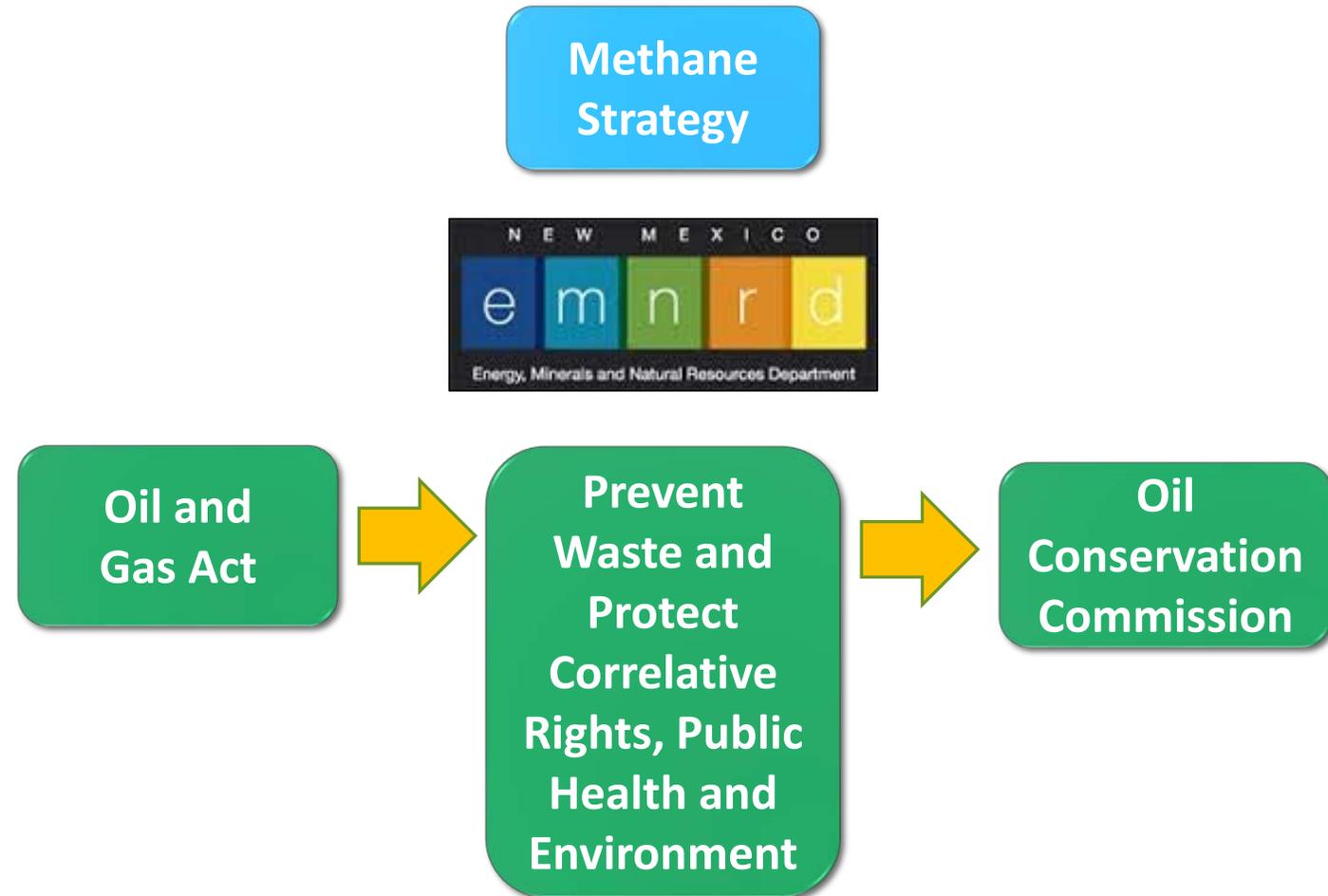
Tiffany A. Polak	Deputy Director	Background, Process & Overview
Matt Lepore	Insight Energy	Parts 27 & 28
Jim Bolander	Insight Energy	Part 28
Brandon Powell	Engineering Bureau Chief	Parts 7, 18, 19, 27 & 28
Mike Teague	Insight Energy	Not testifying

OCD Statutory Objectives

The Oil and Gas Act authorizes OCD to regulate the oil and gas industry to prevent waste and to protect correlative rights, public health and the environment.

Venting and flaring of natural gas constitutes waste and harms correlative rights, public health and the environment.

Venting causes greater harm to public health and the environment than flaring.



Statutory Authority

70-2-2. Waste prohibited.

The production or handling of crude petroleum oil or natural gas of any type or in any form, or the handling of products thereof, in such manner or under such conditions or in such amounts as to constitute or result in waste is each hereby prohibited.

70-2-11. Power of commission and division to prevent waste and protect correlative rights.

A. The division is hereby empowered, and it is its duty, to prevent waste prohibited by this act and to protect correlative rights, as in this act provided. To that end, the division is empowered to make and enforce rules, regulations and orders, and to do whatever may be reasonably necessary to carry out the purpose of this act, whether or not indicated or specified in any section hereof.

B. The commission shall have concurrent jurisdiction and authority with the division to the extent necessary for the commission to perform its duties as required by law.

Statutory Authority

70-2-12. Enumeration of powers.

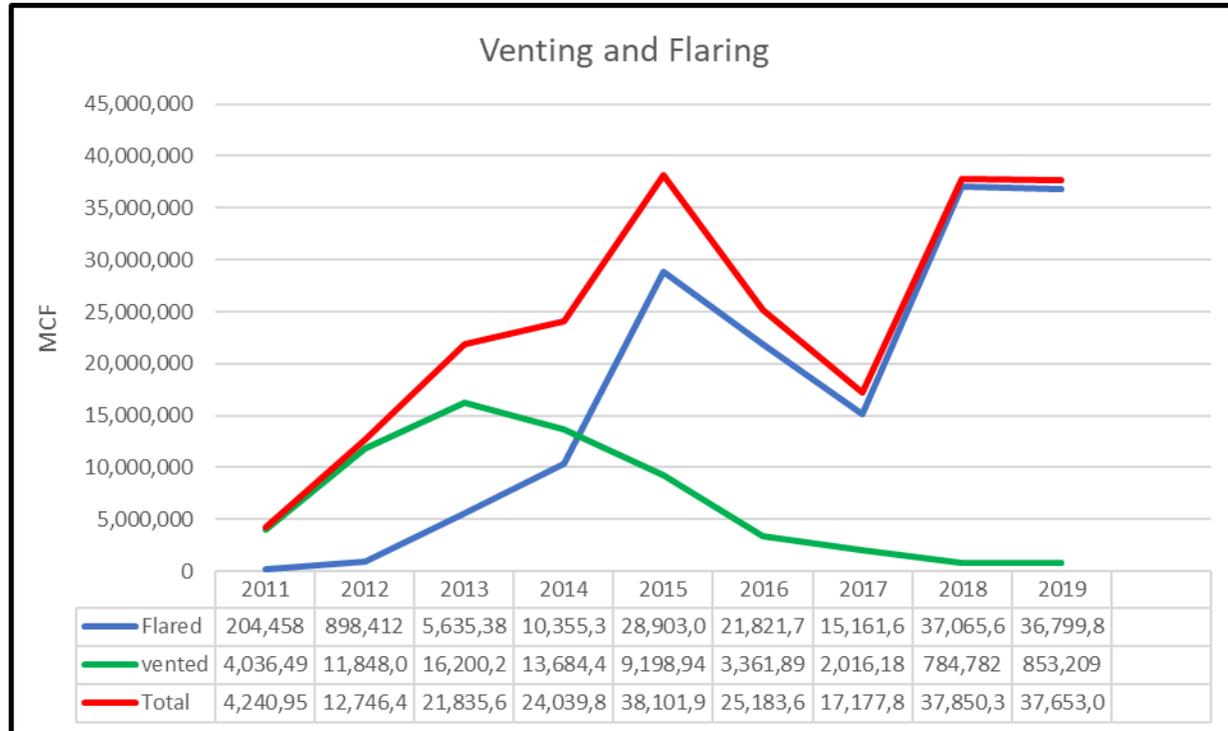
...

B. The oil conservation division may make rules and orders for the purposes and with respect to the subject matter stated in this subsection:

...

(21) to regulate the disposition of nondomestic wastes resulting from the exploration, development, production or storage of crude oil or natural gas to protect public health and the environment; and
(22) to regulate the disposition of nondomestic wastes resulting from the oil field service industry, the transportation of crude oil or natural gas, the treatment of natural gas or the refinement of crude oil to protect public health and the environment....

Significance of Venting and Flaring Change Need



- Despite some claims, the available data does not show overall venting and flaring is decreasing
- Data is inconsistent
- Examples:
 - Operators not reporting venting or mistakenly reporting as flaring
 - Operators not reporting venting or flaring after acquisitions
- Value of gas in lost revenue >\$10MM - \$200MM per year
- Prior regulation is not effective

Developing New Mexico's Methane Strategy



EXECUTIVE ORDER 2019-003

EXECUTIVE ORDER ON ADDRESSING CLIMATE CHANGE AND ENERGY WASTE
PREVENTION

“EMNRD and NMED shall jointly develop a statewide, enforceable regulatory framework to secure reductions in oil and gas sector methane emissions and to prevent waste from new and existing sources and enact such rules as soon as practicable.”

- Governor Michelle Lujan Grisham

Developing the Rules



Science: Using the best available science to inform our decision-making in protecting public health, the environment and minimizing waste.



Innovation: Employing creative engineering and technological solutions to address the public health, environmental and waste challenges.

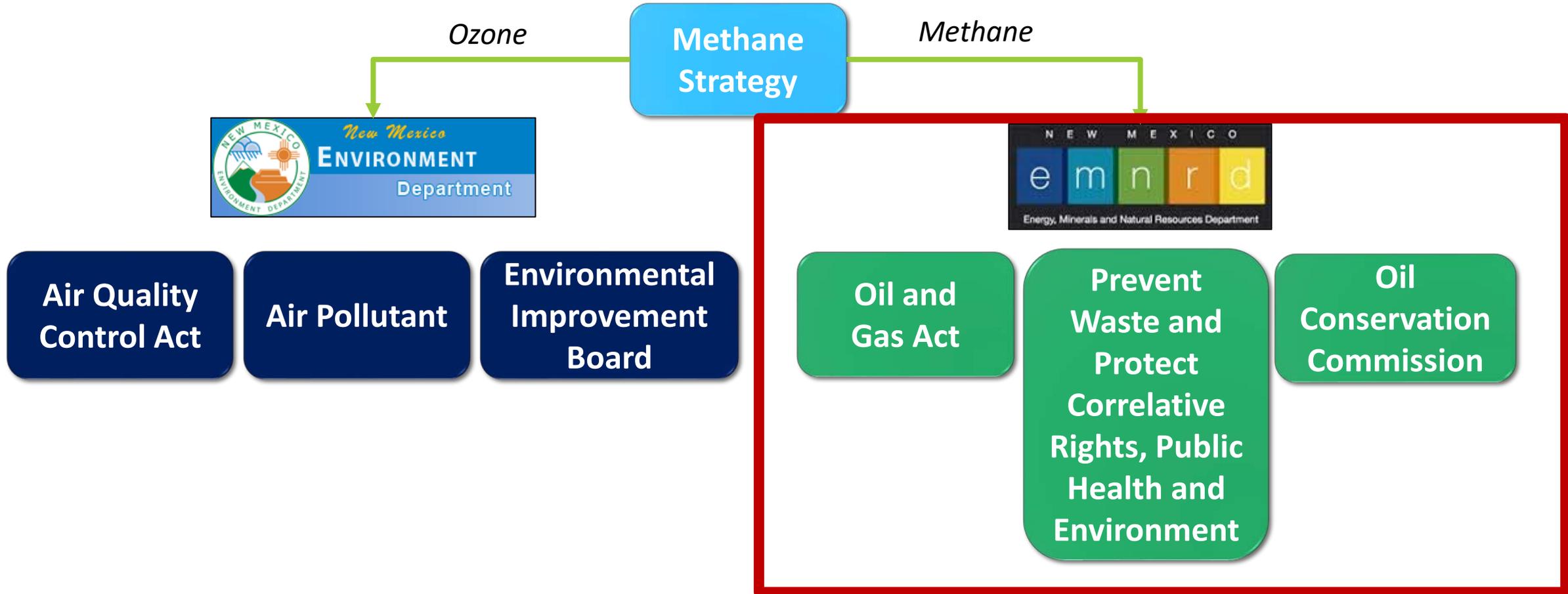


Collaboration: Engaging communities and interested stakeholders in our methane strategy decision-making.

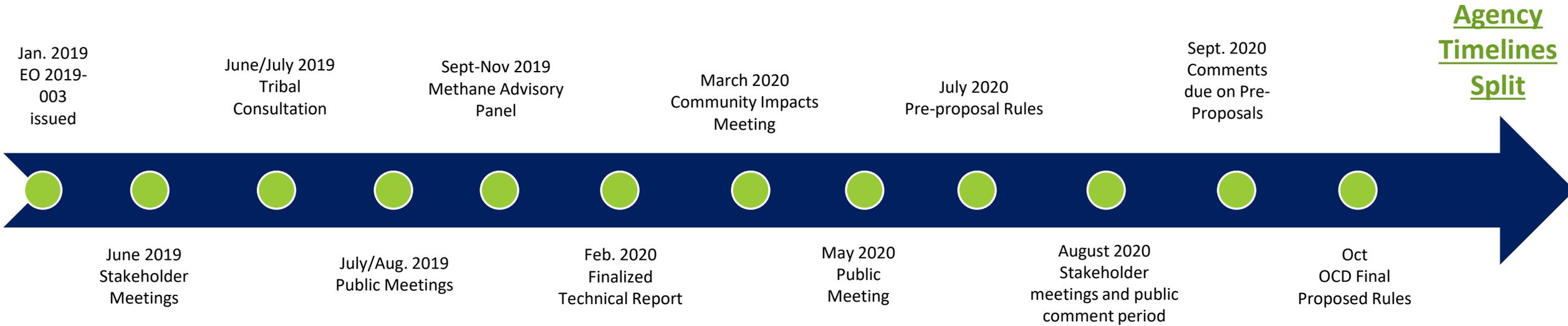


Compliance: Ensuring meaningful compliance with state regulations and permits.

Dual Agency Methane Strategy



New Mexico's Methane Strategy Timeline to Date



Highlights:

- Robust stakeholder engagement throughout the past 1.5 years including:
 - Methane Advisory Panel
 - Stakeholder meetings throughout draft process
 - Extended stakeholder comment period
- Highly integrated agency interaction to produce complementary draft rules

Methane Advisory Panel (MAP)

DESCRIPTION : Joint EMNRD and NMED led panel comprising a cross section of stakeholders and technical experts who discussed technical issues related to capturing methane.

WHO: 27 member team representing wide breadth of stakeholders.

WHEN: Sept – Nov 2019; Final Report issued Feb 2020.

RESULTS: Technical background report related to specific oil and natural gas equipment and processes for consideration in moving forward with an enforceable methane regulatory strategy.

Aztec Well Services
Bio-cultural diversity/Healthy indigenous communities advocate
Center for Civic Policy
Chaco Canyon Coalition
Chevron
Conoco Philips
Devon
DJR
Earthworks
Enduring Resources
Environmental Defense Fund
EOG
Epic Energy
Hanson Operating
Hilcorp Energy
Lucid
Marathon Oil
Merrion Oil and Gas Corp
New Mexico Environmental Law Center
Oxy
Private Rancher/Environmental Advocate
San Juan Citizens Alliance
Sierra Club
Stakeholder Participants:
Western Environmental Law
Whiptail Midstream
XTO

Draft Rule Stakeholder Engagement

- Initial conversations post draft rule release (8/3 – 9/11)
- Follow up conversations to clarify feedback given in initial meetings (8/27 – 10/1)
- More than 450 comments received; ~60 unique responses
- Proposed Rules filed with OCC on 10/16
- Follow up conversations to clarify language and intent of proposed rules (11/12 – 12/17)

BLM

CERES

Cimarex

EDF

EOG

IPANM

Marathon Oil

Midstream (GPA)

NMOGA

PBPA

PRC

Public Webex

Sierra Club

State Land Office

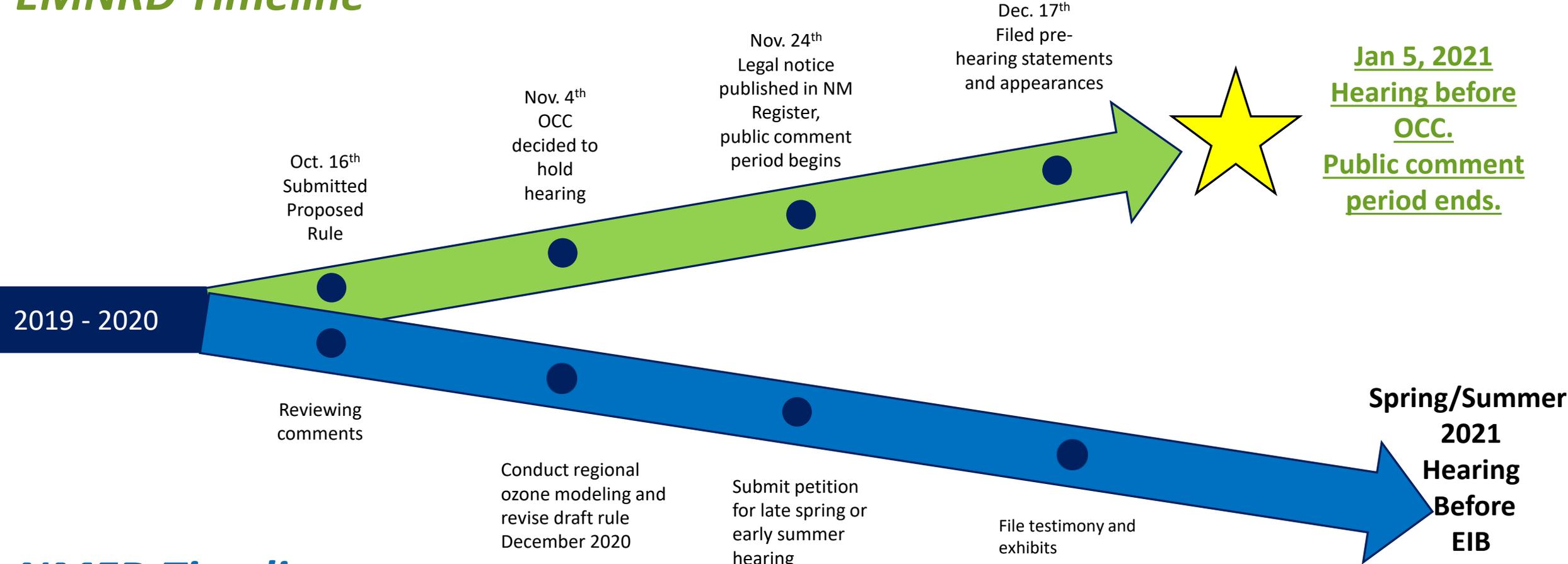
Tribal Liaisons

WELC

XTO

EMNRD Hearing Process

EMNRD Timeline



NMED Timeline

Public Notice Requirements

- Notice published in NM Register
- Notice published in Albuquerque Journal
- Notice sent to persons on OCC's rulemaking list
- Notice posted on OCD's website
- Notice posted at OCD's district offices

EMNRD OCD Proposed Rule Summary

TIFFANY A. POLAK

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Phase 1 Data and Reporting

- Phase 1 timeframe: June 2021 - January 1, 2022 to establish initial baseline target, then ongoing reporting
- Accurate data is critical to establishing meaningful baselines and enforceable goals to reduce natural gas waste
- Data currently being reported is often inconsistent
- What does Phase 1 include?
 - Defines waste to include gas that is vented and flared
 - Requires operators to measure and report all venting and flaring during operations
 - Requires operators to disclose venting and flaring to mineral interest owners who own a share of the natural gas being wasted
 - Exempts venting and flaring during emergencies and other specific events
 - Establishes an enforceable target for Phase 2

Phase 2 Gas Capture Plan

- Starting from the current level of natural gas waste identified in Phase 1, each operator must reduce their waste by a fixed amount each year, in each of two state regions, to achieve a gas capture rate of 98%
- Phase 2 timeframe: December 31, 2026 and every year thereafter

Phase 2 Gas Capture Plan

➤ What does Phase 2 include?

- Applies to operators in upstream (production) [Part 27] and midstream [Part 28] sectors;
- Establishes design standards for gathering pipelines
- Allows each operator to decide how it will meet the 98% target
- Provides flexibility for marginally producing stripper wells to conduct inspections and retrofit equipment but does not exempt them from the 98% gas capture;
- Requires operators to increase their gas capture percentage every year until the 98% target is attained
- Incentivizes new technology, including flyovers, to detect natural gas leaks
- Authorizes OCD to enforce the venting and flaring prohibition and gas capture requirements, including APD denials, well shut-ins, and civil penalties;
 - Operators may be forced to cut back on production or shut in wells.
 - Establishes new drilling permit approval criteria based on meeting gas capture targets, operators must demonstrate compliance or be at risk of not receiving new permit approval

High-Level Changes Since July 2020 Draft

GAS CAPTURE: Changed targets from statewide to regional

REPORTING: Streamlined forms, set thresholds, reduced categories for reporting while still ensuring meaningful data capture

ALARM: Removed credit for disclosure of leak by another operator, extended time limit of credit and increased the amount of credit

GAS MANAGEMENT PLAN: Simplified plan requirements for submission for operators that are meeting targets

PIPELINES: Removed regulating language that would have been preempted by federal law

High-Level Part 27 Changes Since October 16th Proposal

7(G)(4) - excludes venting and flaring caused by emergency, unscheduled maintenance by natural gas gathering system that occurs for more than 4 hours “after notification” by the system (ensures that upstream operators are responsible for venting and flaring only after being notified)

8(A) – clarifies that operators have general duty to minimize venting *and* flaring, not just venting

8(D)(4) & 8(G)(2) and (3) – clarifies requirements for operators to vent and flare from delineation wells

9(A)(3) – clarifies that an operator who acquires new wells must comply with its existing natural gas capture requirements unless modified by OCD

9(A)(4) – bars an operator from spudding a well or recompleting an existing well if out of compliance with its annual gas capture requirement under certain circumstances

9(C) – adds a requirement requiring OCD to seek informal resolution if an operator disputes a request to retain a third party to verify its reporting or accounting and provides the operator the opportunity for a hearing

9(D)(6) – clarifies the information that an operator must submit information in a natural gas management plan

High-Level Part 28 Changes Since October 16th Proposal

7(D)(4) – clarifies that a midstream operator can claim emergency if it complies with notice requirement

8(A) – clarifies that operators have general duty to minimize venting *and* flaring, not just venting

8(D) – reduces the time to notify upstream operators from 24 to 12 hours and added “emergency” and “malfunction” to coincide with emergency exception in 7(D)(4)

10(C) – adds a requirement for OCD to seek informal resolution if an operator disputes a request to retain a third party to verify its reporting or accounting, and adds an opportunity for the operator to request a hearing

Unique Parts of These Rules

- Regulates both Upstream and Midstream
- Establishes 98% gas capture target
- Prohibits routine flaring
- Incentivizes voluntary advanced leak and repair monitoring (ALARM) program which incorporates new, cutting edge technology
- Builds on the work of other agencies, including BLM, EPA, North Dakota, Colorado, Alberta, British Columbia and Texas, Methane Guiding Principles

19.15.27 Venting and Flaring of Natural Gas

19.15.28 Natural Gas Gathering Systems

MATT LEPORE

INSIGHT ENERGY LAW

JANUARY 2021

Legend for Font Colors

Bold Orange Text – changes made in response to public and stakeholder comments

Blue Text – items specific to Part 28

Purple Text – items specific to Part 27

Green Text – items related to stripper wells

Blue Highlight – speaker focal points

Overview of Rules 19.15.27 and 19.15.28

RULE	SCOPE	OBJECTIVES
19.15.27: Venting and Flaring of Natural Gas	Applies to oil and natural gas exploration and production – aka upstream operations	<ul style="list-style-type: none"><li data-bbox="1439 415 2407 621">❑ Reduce waste of natural gas by regulating venting and flaring from wells and production equipment<li data-bbox="1439 639 2440 921">❑ Obtain complete and accurate measurements and reports of the volume of vented and flared natural gas<li data-bbox="1439 939 2484 1149">❑ Requires operators to capture at least 98% of the total volume of natural produced no later than Dec. 31, 2026

Overview of Rules 19.15.27 and 19.15.28

RULE	SCOPE	OBJECTIVES
19.15.28: Natural Gas Gathering Systems	Applies to natural gas gathering and processing – aka midstream operations	<ul style="list-style-type: none"><li data-bbox="1439 415 2407 621">❑ Reduce waste of natural gas by regulating venting and flaring from natural gas gathering systems<li data-bbox="1439 639 2440 921">❑ Obtain complete and accurate measurements and reports of the volume of vented and flared natural gas<li data-bbox="1439 939 2453 1220">❑ Requires gathering system operators to capture at least 98% of the total volume of natural gas gathered no later than Dec. 31, 2026

Overview of Rules 19.15.27 and 19.15.28

RULE	Part 27 Rule No. Part 28 Rule No.	PURPOSE
Definitions	19.15.27.7 19.15.28.7	<input type="checkbox"/> Define key terms to provide clarity and specificity. Definitions are specific to each rule.
Venting and Flaring of Natural Gas	19.15.27.8 19.15.28.8	<input type="checkbox"/> Venting or flaring of natural gas constitutes waste and is prohibited <input type="checkbox"/> Specific, limited exceptions to prohibition
Location Requirements	19.15.28.9	<input type="checkbox"/> Part 28 only
Statewide Natural Gas Capture Requirements and management plans	19.15.27.9 19.15.28.10	<input type="checkbox"/> Operators achieve 98% gas capture rate by 12/31/2026 and file natural gas management plan with APDs (Part 27 only)

Overview of Rules 19.15.27 and 19.15.28

RULE	Part 27 Rule No. Part 28 Rule No.	SUBSECTIONS
Venting and Flaring of Natural Gas	19.15.27.8	<p>A. General prohibition on venting or flaring, including routine flaring of associated gas</p> <p>B.-D. Specific exceptions for drilling, completion, and production operations</p> <p>E. Performance standards for production equipment – to maximize capture and minimize waste of natural gas</p> <p>F. Measurement of vented and flared gas – metered measurements required where possible</p> <p>G. Reporting of vented or flared gas – detailed reporting requirements to improve data quality</p>

Overview of Rules 19.15.27 and 19.15.28

RULE	Part 27 Rule No. Part 28 Rule No.	SUBSECTIONS
Venting and Flaring of Natural Gas	19.15.28.8	<ul style="list-style-type: none">A. General prohibition on venting or flaring, including routine flaring of associated gasB. Specific exceptions to general prohibition.C. Performance standards for natural gas gathering systems – including operations plans to minimize waste of natural gasD. Reporting to affected upstream operators – to allow upstream operations to reduce need to vent or flareE. Measurement of vented and flared gasF. Reporting of vented or flared gas – detailed reporting requirements to improve data quality

Overview of Rules 19.15.27 and 19.15.28

RULE	Part 27 Rule No. Part 28 Rule No.	SUBSECTIONS
Statewide Natural Gas Capture Requirements	19.15.27.9 19.15.28.10	<p>A. Statewide natural gas capture requirements – all operators required to capture 98% of natural gas produced / gathering by 12/31/2026</p> <p>B. Accounting for annual gas capture rate – includes notification to royalty owners of vented and flared volumes</p> <p>C. Third-party verification</p> <p>D. Natural gas management plan – all APDs require a natural gas management plan effective 6/1/2021 – includes sanctions for operators out of compliance with gas capture requirements</p>

Overview of Rules 19.15.27 and 19.15.28

RULE	Part 27 Rule No. Part 28 Rule No.	SUBSECTIONS
Location Requirements – Part 28 only	19.15.28.9	<ul style="list-style-type: none">A. Digital format as-built map required for new, existing, and future gathering pipelines or gathering systemsB. Pipeline size and construction material.C. Annual updates to GIS map by 5/31D. Operator may assert confidentiality over GIS information – (71-2-8 NMSA 1978)

Definitions: 19.15.27.7 and 19.15.28.7

Defined Term	Definition (Definitions are the same in Parts 27 & 28 except at noted)	Purpose
ALARM	“Advanced leak and repair monitoring technology for detecting natural gas or crude oil leaks or releases that is not required by applicable state or federal law, rule, or regulation and which the division has approved as eligible to earn a credit against the reported volume of lost natural gas. ”	Incentivize deployment of leading edge methane monitoring and leak detection technologies to minimize emissions and prevent waste

Definitions: 19.15.27.7 and 19.15.28.7

Defined Term	Definition
Flare or flaring	“The controlled combustion of natural gas in a device designed for that purpose.”
Vent or venting	“The release of uncombusted natural gas to the atmosphere.”

Definitions: 19.15.27.7 and 19.15.28.7

Defined Term	Definition	Purpose
Emergency	“A temporary, infrequent, and unavoidable event in which the loss of natural gas is uncontrollable or necessary to avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment, but does not include an event arising from or related to [six enumerated exceptions].”	Excludes foreseeable, preventable events such as improperly sized equipment, negligence, repeat emergencies, scheduled maintenance, and failure to match production rate to take-away capacity. (Slight differences between Parts 27 & 28)

Definitions: 19.15.27.7 and 19.15.28.7

Defined Term	Definition	Purpose
Malfunction	“A sudden, unavoidable failure or breakdown of equipment beyond the reasonable control of the operator that substantially disrupts operations and requires correction but does not include a failure or breakdown that is caused entirely or in part by poor maintenance, careless operation, or other preventable equipment failure or breakdown.”	Distinguish between true emergencies and “breakdowns,” which are treated differently for gas capture accounting

Venting and Flaring of Natural Gas

19.15.27.8.A & 19.15.28.8.A

General prohibition on venting or flaring

Venting and flaring of natural gas during drilling, completion or production operations [from a natural gas gathering system] constitutes waste and is prohibited except as authorized in Subsections B, C and D of 19.15.27.8 [Subsection B of 19.15.28.8] NMAC. The operator has a general duty to maximize the recovery [gathering] of natural gas and to minimize venting and flaring. During drilling, completion and production operations [gathering], the operator shall flare natural gas rather than vent natural gas except when flaring is technically infeasible or would pose a risk to safe operations or personnel safety, and venting is a safer alternative than flaring.

Venting and Flaring of Natural Gas

19.15.27.8.A / 19.15.28.8.A

Operators have a general duty to minimize the release of natural gas

Venting and flaring of natural gas during drilling, completion or production operations [from a natural gas gathering system] constitutes waste and is prohibited except as authorized in Subsections B, C and D of 19.15.27.8 [Subsection B of 19.15.28.8] NMAC. The operator has a general duty to maximize the recovery [gathering] of natural gas and to minimize venting and flaring. During drilling, completion and production operations [gathering], the operator shall flare natural gas rather than vent natural gas except when flaring is technically infeasible or would pose a risk to safe operations or personnel safety, and venting is a safer alternative than flaring.

Venting and Flaring of Natural Gas

19.15.27.8.A / 19.15.28.8.A

Flaring is preferred to venting, unless there are safety concerns

Venting and flaring of natural gas during drilling, completion or production operations [from a natural gas gathering system] constitutes waste and is prohibited except as authorized in Subsections B, C and D of 19.15.27.8 [Subsection B of 19.15.28.8] NMAC. The operator has a general duty to maximize the recovery [gathering] of natural gas and to minimize venting and flaring. During drilling, completion and production operations [gathering], the operator shall flare natural gas rather than vent natural gas except when flaring is technically infeasible or would pose a risk to safe operations or personnel safety, and venting is a safer alternative than flaring. **OCD modified rule to clarify that flaring is preferred to venting during all operational phases.**

Venting and Flaring of Natural Gas

19.15.27.8.B, C, & D
19.15.28.8.B

Enumerate specific exceptions to venting and flaring prohibition during drilling, completion/recompletion, and production operations, and **natural gas gathering (28.8.B)**

Objective:

Specify limited circumstances under which venting or flaring of natural gas does not constitute waste and therefore is allowed subject to strict controls. Circumstances are specific to different phases of upstream operations (drilling, completion or recompletions, and production) and for natural gas gathering.

Venting and Flaring of Natural Gas

19.15.27.8.B, C, & D	Specific exceptions to venting and flaring prohibition during drilling, completion/recompletion, and production operations
27.8.B: drilling operations	<ul style="list-style-type: none">❑ Operators must capture or combust natural gas if technically feasible using best industry practices and control technologies❑ Operators may vent natural gas in an emergency or malfunction to avoid a risk of immediate and substantial adverse impact on safety, public health, or the environment
27.8.C: completion or recompletion operations	<ul style="list-style-type: none">❑ Operators must route flowback fluids to a separator as soon as technically feasible❑ Operators must capture separated natural gas and may flare only to avoid safety risks to operations or personnel❑ OCD modified rule to add an exception to allow short-term flaring of off-spec gas; and to add recompletion operations subject to regulations in 27.8.C

Venting and Flaring of Natural Gas

19.15.27.8.B, C, & D

Specific exceptions to venting and flaring prohibition during drilling, completion/recompletion, and production operations

27.8.D: production operations

Venting or flaring is allowed only:

- 1) if authorized by a valid, federally enforceable NMED permit
- 2) during an emergency or malfunction to avoid a risk of immediate and substantial adverse impact to safety, public health, or environment
- 3) to unload or clean-up liquid holdup in a well, subject to BMPs
- 4) **Up to 12 months of production from a delineation well**
- 5) during maintenance or normal operations involving low pressure, low volume venting, such as tank gauging, normal operations of pneumatic controllers

Equipment Performance Standards

19.15.27.8.E

Require production equipment to be properly designed, installed, and maintained to minimize waste caused by leaks, releases, or incomplete flare combustion

- 1) Completion and production equipment must be designed for maximum anticipated throughput and pressure
- 2) Automatic gauging equipment on new storage tanks
- 3) Flare stacks must be sized and designed for maximum efficiency and equipped with auto-igniter or continuous pilot light
- 4) Existing flares must be retrofitted within 18 months (**except stripper wells**)
- 5) Operators must conduct weekly or monthly AVO inspections, as specified
- 6) Operators may use remote or automated monitoring technology in lieu of AVO with OCD approval. **OCD modified rule to allow use of technology that provides waste monitoring and prevention equal or better than AVO.**

Measurement of Vented and Flared Natural Gas

19.15.27.8.F
19.15.28.8.E

Upstream and **midstream operators** are required to measure all the natural gas they vent, flare, or put to beneficial use, using metering equipment where practicable.

Objectives:

- Obtain reliable data on volume of produced natural gas that is not being captured and sold or put to beneficial use for both upstream and **midstream operations**
- Establish baseline gas capture percentage for all upstream and **midstream operators**
- Require metering measure emissions; allow calculation if metering is infeasible
- Exempt stripper wells from metering requirement**
- OCD may require installation of additional measuring equipment

Reporting of Vented or Flared Natural Gas

19.15.27.8.G
19.15.28.8.F

Upstream and **midstream operators** are required to report to the division the volume of natural gas they vent, flare, and use for beneficial uses on a monthly basis, including the sources from which natural gas was vented or flared

Objectives:

- Obtain reliable, accurate data on volume of produced **[gathered]** natural gas that is being vented or flared
- Increase understanding of operations, equipment, and emergencies or malfunctions that contribute to venting and flaring
- Provide timely notice to OCD of emergencies or malfunctions that result in venting or flaring
- Provide basis for determining an operator's annual gas capture percentage for purposes of statewide gas capture requirement [see 19.15.27.9 and **19.25.28.10**]

Reporting of Vented or Flared Natural Gas

19.15.27.8.G(1)

19.15.28.8.F(1)

(1) Venting or flaring caused by an emergency, a malfunction, or of long duration.

- Operators must notify OCD of venting or flaring that exceeds 50 MCF in volume resulting from an emergency or malfunction, or that lasts 8 hours or more cumulatively within any 24-hour period by filing a form C-129
 - Report due within 15 days following discovery of venting or flaring less than 500 MCF.
 - Report due no more than 24 hours following discovery or commencement of venting or flaring for 500 MCF or more. F with follow-up report due within 15 days. **OCD modified to be consistent with Rule 19.15.29 and form C-141 reporting criteria.**

Reporting of Vented or Flared Natural Gas

19.15.27.8.G(1) | **(1) Venting or flaring caused by emergency or malfunction, or of long duration.**
19.15.28.8.F(1)

- Operators must certify to accuracy of specific information provided, including volume, cause, and nature of venting or flaring, and corrective actions taken to eliminate the cause and recurrence of venting and flaring
- OCD may request additional, certified information from an operator
- Operators must file a form C-141 instead of a C-129 for a release of liquids that is or may become a major or minor release under 19.15.29.7 NMAC

Reporting of Vented or Flared Natural Gas

19.15.27.8.G(2)

19.15.28.8.F(2)

(2) Monthly reporting of vented or flared natural gas.

- Operators must submit a monthly V&F report in **13 (originally 20) specific categories [10 (originally 15) categories in Part 28]** beginning in June 2021*
- Operators must specify whether reported volumes are measured or estimated, and the calculation method used for estimates
- Sample categories:
 - Emergency
 - Routine repair or maintenance
 - Manual liquid unloading
 - Uncontrolled storage tanks
 - Venting as a result of normal operation of pneumatic controllers *except for operators that vent or flare less than 500,000 ft³ per year*

* OCD will develop a new Form C-115B for reporting venting and flaring commencing January 2022

Reporting of Vented or Flared Natural Gas

19.15.27.8.G(3) – (5)
19.15.28.8.F(3) – (5)

Monthly reporting of vented or flared natural gas.

- (3) Operators must report lost natural gas in both volumetric and percentage of production [percentage of gas gathered].
- (4) Operators must report vented and flared volumes of natural gas all royalty owners in the mineral estate being produced by a well.
- (5) Upon OCD's request, operators must use an approved third party to verify any data or information collected or reported, submit a report of the verifications and recommendations for improving collection and reporting, and implement any recommendations approved by OCD. **OCD modified the rule to add this provision.**

Statewide Natural Gas Capture Requirements

19.15.27.9.
19.15.28.10

Beginning in 2022, upstream operators must capture and sell, or put to beneficial use, an increasing percentage of the natural gas they produce to achieve a minimum capture rate of 98% no later than December, 2026, and **midstream operators must capture 98% of the natural gas volumes they gather.**

Objectives:

- Attain objective, measurable, and meaningful reductions of waste from venting and flaring natural gas on a realistic, fixed, enforceable schedule
- Provide operators with adequate lead-time to establish baseline emission rates before commencing required reductions
- Establish performance-based standard rather than prescriptive requirements

Statewide Natural Gas Capture Requirements

19.15.27.9.
19.15.28.10

Beginning in 2022, upstream operators must capture and sell, or put to beneficial use, an increasing percentage of the natural gas they produce to achieve a minimum capture rate of 98% not later than December 31, 2026, and **midstream operators must capture 98% of the natural gas volumes they gather.**

Implementation:

- The division may deny or conditionally approve an APD, or impose other sanctions, if an operator is not in compliance with its gas capture requirements
- An operator may not spud any new wells, even with approved APDs, if out of compliance with its annual gas capture requirements, in certain circumstances
- Operators in compliance with their gas capture requirements benefit from streamlined natural gas management plans [Part 27 only]

Statewide Natural Gas Capture Requirements

19.15.27.9.A

19.15.28.10.A

A. Statewide natural gas capture requirements

- ❑ Two distinct reporting areas – north / south of the township 10 North line; operators must comply in each area independently. **OCD modified the rule to create separate reporting areas to prevent operators from acquiring assets to meet its gas capture requirements.**
- ❑ Each operator's baseline capture rate will be based on its 2021 venting and flaring data, and the annual capture rate will be derived from this baseline.
- ❑ Operators with a baseline capture rate below 60% must submit a compliance plan.
- ❑ An operator may not spud new wells if out of compliance with gas capture requirements
- ❑ Transfer of existing wells between operators does not change compliance deadline without OCD approval.

Statewide Natural Gas Capture Requirements

19.15.27.9.B(1), (2)

19.15.28.10.B (1), (2)

Gas capture rate accounting

- ❑ Operators must file an annual report certifying gas capture compliance status by February 15 beginning in 2023
- ❑ Certain categories of vented or flared natural gas are excluded from “lost gas” calculation:
 - Emergencies
 - Due to presence of N₂ or H₂S [Part 27 only]
 - Beneficial use
 - **Delineation wells** [Part 27 only]

Statewide Natural Gas Capture Requirements

19.15.27.9.B.(3)-(6)

19.15.28.10.B.(3)-(6)

ALARM gas capture credits

- ❑ An operator that uses division-approved ALARM technology to monitor for natural gas leaks may receive a credit against its lost gas rate if it:
 - uses ALARM technology routinely as a waste-reduction practice
 - promptly isolates and repairs a leak discovered using ALARM technology
 - timely reports the leak to OCD as an ALARM event
- ❑ OCD can grant a credit of 40% or 60% (**originally 30%-50%**) of the volume of a natural gas leak
 - Credits can be used only by the operator who filed the application
 - Credits can be used only once
 - Credits expire in 24 months

Statewide Natural Gas Capture Requirements

19.15.27.9.B, C

19.15.28.10.B, C

Gas capture rate accounting; third-party verification

- OCD may request that an operator retain a third-party to verify any data or information collected or reported, submit a report of the verifications and recommendations for improving collection and reporting, and implement any recommendations approved by OCD.
 - If the operator may file for a division hearing if it disagrees with the division's requested actions.
- OCD modified the rule to add this provision.**

Statewide Natural Gas Capture Requirements

19.15.27.9.D (Part 27 only)

Natural gas management plan

Objectives:

- Ensure operators diligently plan for sufficient natural gas gathering capacity before new wells are put into production
- Ensure operators considers and plans for alternatives to venting or flaring if gathering capacity is unavailable, insufficient, or uncertain

Implementation:

- Ensure operators update OCD if anticipated gathering capacity becomes unavailable, insufficient, or uncertain during APD pendency
- OCD may deny or conditionally approve APD if gathering capacity is unavailable, insufficient, or uncertain

Statewide Natural Gas Capture Requirements

19.15.27.9.D (Part 27 only)

Natural gas management plan

(1) Beginning June 1, 2021, an operator must file a gas management plan with each APD that specifies how the operator intends to comply with Part 27.8(A)-(D).

(2) An operator that is not in compliance with its gas capture requirements must file a more comprehensive plan that specifies:

- Anticipated production volumes
- The natural gas gathering system the operator has contracted or intends to contract with and information about the system's location, capacity, and availability. **OCD modified the rule to incentive compliance with the gas capture.**

(3) The operator may submit a request asserting confidentiality of the information contained in its natural gas management plan. **OCD modified the rule to acknowledge the potential for confidential information.**

Statewide Natural Gas Capture Requirements

19.15.27.9.D (Part 27 only)

Natural gas management plan

(4) An operator must certify whether it will be able to connect to a gathering system with sufficient capacity to transport 100% of the anticipated volume of natural gas produced at each well at the time of first production.

(5) An operator that cannot certify to the availability of sufficient gas gathering capacity must either shut-in the well until the operator can certify takeaway capacity or submit a venting and flaring plan that evaluates potential alternative uses for the anticipated natural gas production, e.g.:

(a) power generation on-lease

(e), (g) reinjection for storage or enhanced oil recovery

(h) fuel cell production

Statewide Natural Gas Capture Requirements

19.15.27.9.D (Part 27 only)

Natural gas management plan

(6) An operator must notify the division any time after submitting APD and before the well is spud if:

(a) the planned natural gas gathering system's capacity becomes unavailable or insufficient; or

(b) the operator becomes aware it has out of compliance with its statewide gas capture requirements

(7) If an operator cannot certify to the availability of sufficient gas gathering capacity or does not submit an adequate venting and flaring plan, or the division determines sufficient takeaway capacity will not be available, the division may:

(a) deny the APD; or

(b) conditionally approve the APD

19.15.27 Venting and Flaring of Natural Gas

19.15.28 Natural Gas Gathering Systems

JIM BOLANDER

INSIGHT ENERGY LAW

JANUARY 2021

Overview of Rules 19.15.28

RULE	SCOPE	OBJECTIVES
19.15.28: Natural Gas Gathering Systems	Applies to natural gas gathering and processing – aka midstream operations	<ul style="list-style-type: none">❑ Reduce waste of natural gas by regulating venting and flaring from natural gas gathering systems❑ Obtain complete and accurate measurements and reports of the volume of vented and flared natural gas❑ Require gathering system operators to capture at least 98% of the total volume of natural gas gathered no later than Dec. 31, 2026

Overview of Rules 19.15.28

Subject	Part 28 Rule No.	Subpart overview
Definitions	19.15.28.7	Define key terms to provide clarity and specificity. Definitions are specific to each rule.
Venting and Flaring of Natural Gas	19.15.28.8	<ul style="list-style-type: none"><input type="checkbox"/> Prohibitions and exceptions<input checked="" type="checkbox"/> Operations performance standards<input type="checkbox"/> Measurement of vented and flared natural gas<input type="checkbox"/> Reporting of vented and flared natural gas<input checked="" type="checkbox"/> Reporting to affected upstream operators

Overview of Rules 19.15.28

Subject	Part 28 Rule No.	Subpart overview
Location Requirements	19.15.28.9	Digital format as-built map required for new, existing, and future gathering pipelines or gathering systems
Statewide Natural Gas Capture Requirements	19.15.28.10	<ul style="list-style-type: none"><li data-bbox="1439 611 2407 743">❑ Operators required to achieve 98% gas capture rate by 12/31/2026<li data-bbox="1439 761 2474 893">❑ Operators must account for and report all vented or flared gas to OCD<li data-bbox="1439 911 2448 1196">❑ Operators upon request by division shall perform third party verification of data or information collected or reported

Definitions: 19.15.28.7

Defined Term	Definition (Definitions are the same in Parts 27 & 28 except at noted)	Purpose
Custody transfer point	“means the transfer of natural gas from upstream separation, processing or treatment to a pipeline or any other form of transportation”	Defines the point of transfer of natural gas from upstream operator to operator of natural gas gathering system

Definitions: 19.15.28.7

Defined Term	Definition (Definitions are the same in Parts 27 & 28 except at noted)	Purpose
Emergency	<p>“A temporary, infrequent, and unavoidable event in which the loss of natural gas is uncontrollable or necessary to avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment, but does not include an event arising from or related to [six enumerated exceptions].”</p> <p>OCD modified rule to incorporate an exception for non-scheduled events if midstream fails to comply with notification requirements of rule.</p>	<p>Excludes foreseeable, preventable events such as improperly sized equipment, negligence, repeat emergencies, scheduled maintenance, failure to limit take away when volume exceeds distribution, and unscheduled events that result in upstream disruptions</p>

Definitions: 19.15.28.7

Defined Term	Definition	Purpose
Gathering pipeline	“A pipeline that gathers natural gas from the custody transfer point to the connection point with a natural gas processing plant or a transmission or distribution system.”	Defines natural gas pipelines within OCD’s jurisdiction
Natural gas gathering system	“The gathering pipelines and associated facilities that compress, dehydrate, or treat natural gas from the custody transfer point to the connection point with a natural gas processing plant or a transmission or distribution system.”	Defines a system to include pipelines and associated facilities

Venting and Flaring of Natural Gas

19.15.27.8.A

19.15.28.8.A

Flaring is preferred to venting, unless there are safety concerns

Venting and flaring of natural gas during drilling, completion or production operations [from a natural gas gathering system] constitutes waste and is prohibited except as authorized in Subsections B, C and D of 19.15.27.8 [Subsection B of 19.15.28.8] NMAC. The operator has a general duty to maximize the recovery [gathering] of natural gas and to minimize the venting and flaring of natural gas. During drilling, completion, production operations and gathering operations, the operator shall flare natural gas rather than vent natural gas except when flaring is technically infeasible or would pose a risk to safe operations or personnel safety, and venting is a safer alternative than flaring. **OCD modified the rule to state that flaring is always preferred to venting in all cases.**

Venting and Flaring of Natural Gas

19.15.27.8.B, C, & D	Specific exceptions to venting and flaring prohibition during drilling, completion, and production operations
27.8.B: drilling operations	<ul style="list-style-type: none"><li data-bbox="631 415 2481 548">❑ Operators must capture or combust natural gas if technically feasible using best industry practices and control technologies.<li data-bbox="631 568 2430 772">❑ Operators may vent natural gas in an emergency or malfunction to avoid a risk of immediate and substantial adverse impact on safety, public health, or the environment.
27.8.C: completion or recompletion operations	<ul style="list-style-type: none"><li data-bbox="631 822 2321 955">❑ Operators must route flowback fluids to a separator as soon as technically feasible<li data-bbox="631 975 2456 1108">❑ Operators must capture separated natural gas and may flare only to avoid safety risks to operations or personnel.<li data-bbox="631 1128 2499 1409">❑ Operators may flare natural gas containing N₂ or H₂S for up to 60 days OCD modified rule to add an exception to allow short-term flaring of off-spec gas; and to add recompletion operations subject to regulations in 27.8.C.

Venting and Flaring of Natural Gas

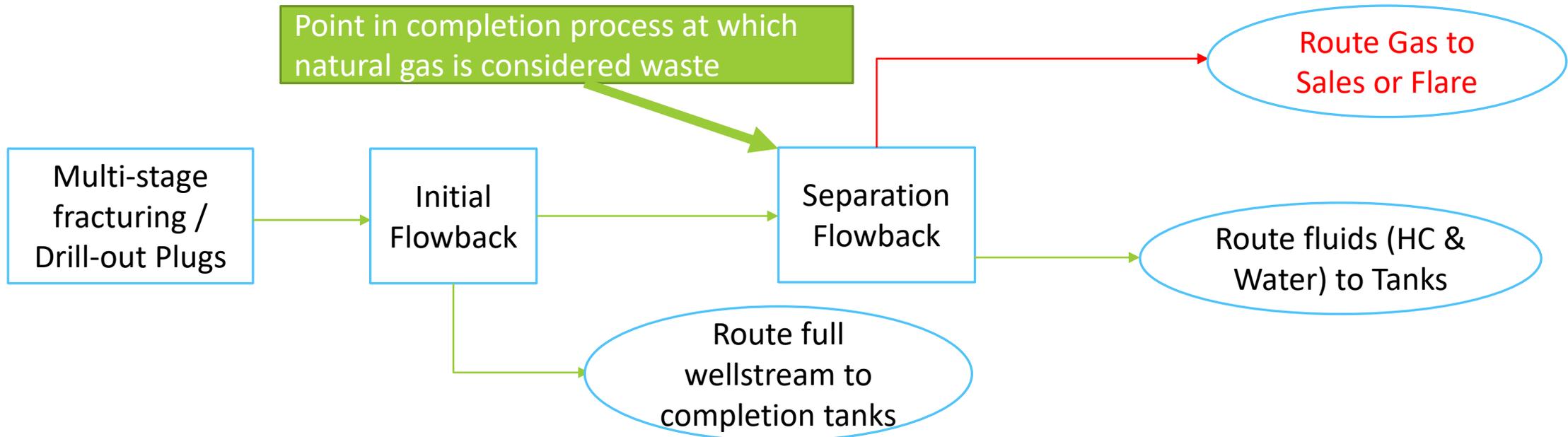
19.15.27.8.C

Venting and flaring during completion or recompletion operations

Rule Language excerpt:

(1) During initial flowback, the operator shall route flowback fluids into a completion or storage tank and commence operation of a separator as soon as it is technically feasible for a separator to function.

(2) During separation flowback, the operator shall capture and route natural gas:



Venting and Flaring of Natural Gas

19.15.27.8.B, C, & D

Specific exceptions to venting and flaring prohibition during drilling, completion, and production operations

27.8.D: production operations

Venting or flaring is allowed only:

- 1) if authorized by a valid, federally enforceable NMED permit
- 2) during an emergency or malfunction to avoid a risk of immediate and substantial adverse impact to safety, public health, or environment
- 3) to unload or clean-up liquid holdup in a well, subject to BMPs;
- 4) Up to 12 months of production from a delineation well; **OCD modified rule to allow for testing of exploration projects to determine project feasibility.**
- 5) during maintenance or normal operations involving low pressure, low volume venting, such as tank gauging, normal operations of pneumatic controllers

Venting and Flaring of Natural Gas

19.15.28.8.B

Specific exceptions to venting and flaring prohibition during natural gas gathering

Venting or flaring is allowed only:

- 1) if authorized by a valid, federally enforceable NMED permit;
- 2) during an emergency or malfunction to avoid a risk of immediate and substantial adverse impact to safety, public health, or environment
- 3) during the following activities unless prohibited by applicable state and federal law for hydrocarbon or VOC emissions:
 - scheduled repair and maintenance
 - normal operation of a gas-activated pneumatic controller; a dehydration unit; or a compressor or compressor engine; pigging or purging gathering lines
 - Tank gauging; loading out liquids from low pressure vessels

Equipment Performance Standards

19.15.27.8.E

Minimize the need vent or flare and reduce the likelihood of natural gas leaks or releases by requiring production equipment to be properly designed, installed, and maintained

- 1) Completion and production equipment must be designed for maximum anticipated throughput and pressure
- 2) Automatic gauging equipment on new storage tanks
- 3) Flare stacks must be sized and designed for maximum efficiency, and equipped with auto-igniter or continuous pilot light.
- 4) Existing flares must be retrofitted within 18 months (except stripper wells);

Equipment Performance Standards

19.15.27.8.E

Minimize the need vent or flare and reduce the likelihood of natural gas leaks or releases by requiring production equipment to be properly designed, installed, and maintained

- 5) Operators must conduct weekly or monthly AVO inspections, as specified; **OCD modified the rule to conform with NMED requirements and to require AVO for stripper wells when operator are on location but no less than monthly.**
- 6) Operators may use remote or automated monitoring technology in lieu of AVO with OCD approval. **OCD modified rule to allow use of technology that results in same or better monitoring on site.**

Operations Performance Standards

19.15.28.8.C

Minimize the need vent or flare and reduce the likelihood of natural gas leaks or releases by requiring operation plans and periodic inspections for gathering lines

- ❑ 28.8.C.(1) - Operator must submit to OCD and implement an operations plan to reduce leaks; the rule recommends but does not require procedures and methods. **OCD modified the rule to remove provisions that were preempted by the federal pipeline safety law.**

Operations Performance Standards

19.15.28.8.C

Minimize the need vent or flare and reduce the likelihood of natural gas leaks or releases by requiring operation plans and periodic inspections for gathering lines

- 28.8.C(2) - Venting prohibited during scheduled maintenance
- 28.8.C(3) - Venting prohibited during unscheduled maintenance unless flaring is technically infeasible and would pose a safety risk
- 28.8.C(4) - Weekly AVO inspections of compressors, dehydrators, and treatment facilities
- 28.8.C(5) - Annual instrument monitoring of the entire length of a gathering pipeline using AVO, ALARM, or other valid leak detection technology

OCD modified the rule to require operators to flare during these events unless technically unfeasible or pose a safety risk.

Reporting to Affected Upstream Operators

19.15.28.8.D	Requires midstream operators to notify affected upstream operators in advance of scheduled maintenance and promptly after discovery of unscheduled maintenance to allow upstream operators to adjust production if necessary to reduce venting or flaring
27.8.D: production operations	<ul style="list-style-type: none">❑ For scheduled maintenance, operators must provide 14 days advance written notice to affected upstream operators, including date and expected duration of service outage❑ For unscheduled maintenance, operators must provide verbal notice ASAP but no more than 12 hours and follow-up with written notice ASAP, but no more than 24 hours after discovery, including date and expected duration of service outage <p>OCD modified the rule to improve communication with upstream operators to minimize venting and flaring due to changes in upstream operating conditions caused by midstream activities.</p>

Measurement of Vented and Flared Natural Gas

19.15.27.8.F
19.15.28.8.E

Upstream and **midstream operators** are required to measure all the natural gas they vent, flare, or put to beneficial use, using metering equipment where practicable.

Objectives:

- ❑ Require use of meters to measure volume of natural gas; when not practicable, allows estimation of volume of natural gas. **OCD modified the rule to define the use of meters when volume and pressure are sufficient to accurately meter volumes and to provide industry equipment guidance.** Stripper well exception from requirement to install metering equipment.

Reporting of Vented or Flared Natural Gas

19.15.27.8.G(1) | **(1) Venting or flaring caused by emergency or malfunction, or of long duration**
19.15.28.8.F(1)

- Operators must notify OCD of venting or flaring that exceeds 50 MCF in volume resulting from an emergency or malfunction, or that lasts 8 hours or more, cumulatively, within any 24-hour period by filing a form C-129
- Report due within 15 days following discovery of venting or flaring less than 500 MCF; Report due no more than 24 hours following discovery or commencement of venting or flaring for 500 MCF or more with follow-up report due within 15 days
- Operators must certify to accuracy of specific information provided, including volume, cause, and nature of venting or flaring, and corrective actions taken to eliminate the cause and recurrence of venting and flaring
- Operators must file a form C-141 instead of a C-129 for a release of liquids that is or may become a major or minor release under 19.15.29.7 NMAC

OCD modified to be consistent with Rule 19.15.29 and form C-141 reporting criteria

Reporting of Vented or Flared Natural Gas

19.15.27.8(G)(2) Category Revisions

Non-scheduled maintenance and equipment malfunctions	Combined events that are similar in operations
Drilling operations	Deleted because volumes are too small to measure (tstm) and not considered waste
Completions operations	Deleted because volumes prior to separation are tstm, no methodology to safely capture and separation flowback captured by another category
Pilot and purge gas	Deleted because volume is already reported on Form C115 as lease use
Bradenhead and packer leakage tests	Delete because volume is tstm and not considered waste
Venting in excess of design specifications for pneumatics	Deleted because of high cost to measure with low accuracy and no credible method of estimation
Delineation wells	Added to account for volumes vented and flared

Reporting of Vented or Flared Natural Gas

19.15.28.8(F)(2) Category Revisions

Non-scheduled maintenance and equipment malfunctions

Combined events that are similar in operations

Pilot and purge gas

Created new category of beneficial use which includes pilot and purge gas and fuel for fired equipment and engines

Gathering pipeline blowdown and purging

Combined events that are similar in nature

Venting in excess of design specifications for pneumatics

Deleted because of high cost to measure with low accuracy and no credible method of estimation

Reporting of Vented or Flared Natural Gas

19.15.28.8.F(3)

Monthly reporting of vented or flared natural gas

Operators must report lost natural gas in both volumetric and percentage of natural gas gathered. **OCD modified the rule to revise the natural gas gathering calculation to be based on percentage of gas gathered and not delivered due to complexity within the natural gas gathering system.**

Location Requirements

19.15.28.9

Natural gas gathering system operators must file with the division a GIS digitally formatted as-built map of their new and existing systems

Objectives

- ❑ Foundational requirement for OCD to know where gathering lines are located and who owns and operates them
- ❑ Allow OCD to track leaks, and identify gathering pipelines that have repeated incidents
- ❑ Improve OCD's ability to respond to leaks, and to assist response by local emergency management agencies

OCD modified the rule to add these provisions for regulatory oversight.

Location Requirements

19.15.28.9

Natural gas gathering system operators must file with the division a GIS digitally formatted as-built map of their new and existing systems

- GIS maps required for new and existing natural gas gathering systems:
 - Within 90 days following in-service date for new pipelines or systems or additions to existing systems; and
 - No later than May 31, 2021 for existing pipelines or systems
- GIS map must include the pipeline size and construction material
- Operators must update GIS maps annually and include the date, location, and volume of vented or flared natural gas for each emergency, malfunction, and release reported to the division since the effective date of this rule.
- An operator may assert confidentiality for the GIS digitally formatted as-built map and GIS layer, which OCD shall review pursuant to Section 71-2-8 NMSA 1978.

Part 27 & Part 28 New Mexico Context

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NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

DECEMBER 2020

Part 27

Part 27 address natural gas waste from venting and flaring by upstream operations.

19.15.27.6 OBJECTIVE

“To regulate the venting and flaring of natural gas from wells and production equipment and facilities to prevent waste and protect correlative rights, public health, and the environment.”

19.15.27.8 NMAC

VENTING AND FLARING OF NATURAL GAS

This section generally prohibits venting and flaring but identifies a limited number of situations when venting and flaring is allowed, establishes equipment and measurement standards, and explains how operators must venting and flaring.

Subsection A

➤ Main points

- Describes the scope of authorized venting and flaring
- Confirms that venting and flaring outside of this scope is considered waste
- Clarifies the operator's general duty to maximize the recovery of natural gas and minimize the release of natural gas to the atmosphere

➤ What does this mean?

- Explains OCD's expectations regarding venting and flaring
- Confirms OCD's commitment to require operators to reduce the waste of natural gas to the greatest extent possible

19.15.27.8 NMAC

VENTING AND FLARING OF NATURAL GAS

Subsection B - Venting and flaring during drilling operations

➤ Main points

- Describes the operator's obligations for venting and flaring during drilling operations
- Requires operators to flare natural gas – instead of venting it - to the maximum extent possible to reduce impacts to public health and the environment

➤ What does this mean?

- The implementation of prescriptive venting and flaring requirements during drilling operations is new in New Mexico

19.15.27.8 NMAC

VENTING AND FLARING OF NATURAL GAS

Subsection C - Venting and flaring during completion and recompletion operations

➤ Main points

- Describes the operator's obligations for venting or flaring during completion and recompletion
- Allows for extended completion timeframe if the gas contains N_2 or H_2S above pipeline specifications
- Separates completion into non-separation and separation phases. During the separation phase, the operator must capture as much natural gas as possible

➤ What does this mean?

- Implements new expectations because OCD has not previously had prescriptive venting and flaring regulations for completion/recompletion operations
- Allows operators to address N_2 or H_2S concentrations in a safe manner

19.15.27.8 NMAC

VENTING AND FLARING OF NATURAL GAS

Subsection D - Venting and flaring during production operations

➤ Main points

- Describes the operator's obligations for venting or flaring during production operations
- Routine flaring is no longer an allowed practice. As such, the division will work with operators to phase out this practice through a compliance program.

➤ What does this mean?

- Establishes clear and enforceable expectations because venting and flaring during production operations has not been consistently regulated by the OCD due to ambiguity in the current rule

19.15.27.8 NMAC

VENTING AND FLARING OF NATURAL GAS

Subsection E - Performance standards for separation, storage tank and flare equipment

➤ Main points

- Establishes equipment standards for separators, storage tanks and flares
- Requires AVO inspections of production equipment which reduces venting and flaring by identifying leaks earlier than historical practices
- Requires monthly inspections of shut-in, temporarily abandoned and inactive wells, most of which have not been inspected in years

➤ What does this mean?

- Implements new expectations because OCD historically has not applied performance standards on equipment for venting or flaring
- OCD historically has not required operators to conduct inspections on a specified frequency

19.15.27.8 NMAC

VENTING AND FLARING OF NATURAL GAS

Subsection F - Measurement of vented and flared natural gas

➤ Main points

- Establishes requirements for measuring venting and flaring
- Measurement includes physical metering or estimations

➤ What does this mean?

- Implements new expectations because OCD historically has not required measurement of this quality and frequency
- Ensures better measurement practices that provide a more accurate picture of venting and flaring

19.15.27.8 NMAC

VENTING AND FLARING OF NATURAL GAS

Subsection G - Reporting of vented or flared gas

➤ Main points

- Establishes requirements for reporting volumes of vented and flared natural gas
- Changes the intent of the C-129 from an authorization form to a reporting form
- Allows the C-129 to be used in lieu of a C-141 when reporting a gas only releases

➤ What does this mean?

- Reforms the current reporting system, which is inadequate and unreliable. OCD does not have sufficient credible data to understand the frequency and location of venting and flaring in the state
- The new reporting system corrects this deficiency by requiring operators to provide detailed and accurate data to guide compliance review and future regulatory actions

19.15.27.9 NMAC

STATEWIDE NATURAL GAS CAPTURE

This section establishes the gas capture requirements and accounting methods.

Subsection A - Natural gas capture requirements

➤ Main points

- Establishes the operator's natural gas capture requirement as 98% by December 31, 2026
- Requires the operator to achieve annual increments of gas capture over five years
- Applies separately to the north and south halves of the state to ensure that operators do not acquire better performing wells in one part of the state to offset noncompliance in the other part of the state
- Requires operators be in compliance with their annual gas capture percentage prior to spudding a well

➤ What does this mean?

- Implements a new expectation because New Mexico currently does not have a natural gas capture requirement
- Holds all operators to the same standard but allows the operators to follow different paths to compliance depending on their benchmark performance in 2021
- Separates the state into two areas to reflect differences in production practices, different natural gas gathering systems and to discourage acquisitions for the sole purpose of achieving compliance

19.15.27.9 NMAC

STATEWIDE NATURAL GAS CAPTURE

Subsection B - Accounting

➤ Main points

- Establishes the accounting requirements for venting and flaring, including the method for calculating the natural gas capture percentage
- Incentivizes the use of Advanced Leak and Repair Monitoring Technology (ALARM) to detect and fix leaks

➤ What does this mean?

- Implements a new expectation because New Mexico currently does not have a natural gas capture requirement
- Holds all operators to the same standard but allows the operators to follow different paths to compliance depending on their benchmark performance in 2021
- Separates the state into two areas to reflect differences in production practices, different natural gas gathering systems and to discourage acquisitions for the sole purpose of achieving compliance

19.15.27.9 NMAC

STATEWIDE NATURAL GAS CAPTURE

Subsection C – Third party verification

➤ Main point

- Authorizes OCD to require third party verification of reported volumes of venting and flaring

➤ What does this mean?

- Establishes OCD's authority to review the operator's data collection and reporting practices.
- Provides a collaborative tool for OCD and operators to review concerns without having to file an enforcement action

19.15.27.9 NMAC

STATEWIDE NATURAL GAS CAPTURE

Subsection D - Natural gas management plan

➤ Main points

- Requires upstream and midstream operators to plan for collection of natural gas *before* OCD approves an APD
- Reduces venting and flaring by encouraging upstream operators to secure takeaway capacity as part of their development strategy
- Plan requirements adjusted based off an operator's compliance with natural gas capture percentage

➤ What does this mean?

- Creates a comprehensive, standardized, and enforceable mechanism for operators to achieve their natural gas capture requirements. OCD previously attempted to encourage planning by requiring operators to submit gas capture plans with their APDs. However, this effort was implemented by policy, rather than regulation, and OCD had limited authority to enforce the plans.

Part 28

Part 28 address natural gas waste from venting and flaring by midstream operations.

19.15.28.6 NMAC - OBJECTIVE

“To regulate the venting and flaring of natural gas from natural gas gathering systems to prevent waste and protect public health and the environment.”

OCD previously has not regulated venting and flaring from midstream operations.

19.15.28.8 NMAC

VENTING AND FLARING OF NATURAL GAS

This section generally prohibits venting and flaring but identifies a limited number of situations when venting and flaring is allowed, establishes equipment and measurement standards.

Subsection A

This regulation is similar in regulation and intent as the corresponding Part 27.8.A

➤ **Main points**

- Describes the scope of authorized venting and flaring
- Confirms that venting and flaring outside of this scope is considered waste
- Clarifies the operator's general duty to maximize the recovery of natural gas and minimize the release of natural gas to the atmosphere

➤ **What does this mean?**

- Explains OCD's expectations regarding venting and flaring
- Confirms OCD's commitment to require operators to reduce the waste of natural gas to the greatest extent possible

19.15.28.8 NMAC

VENTING AND FLARING OF NATURAL GAS

Subsection-B

➤ Main points

- Describes the prohibition on venting and flaring except in limited situations
- Requires operators to flare natural gas – instead of venting it - to the maximum extent possible to reduce impacts to public health and the environment

➤ What does this mean?

- Implements new expectations because OCD historically has not regulated venting and flaring from natural gas gathering systems

19.15.28.8 NMAC

VENTING AND FLARING OF NATURAL GAS

Subsection C - Performance Standards

This regulation is similar in regulation and intent as the corresponding Part 27.8.E

➤ Main points

- Establishes performance standards for natural gas gathering systems
- Requires operators to develop operations plans to reduce leaks and releases
- Requires AVO inspections of compressors, dehydrators, and treatment facilities

➤ What does this mean?

- Implements new expectations because OCD historically has not applied performance standards
- Establishes a standard set of expectations
- Reduces venting and flaring by identifying leaks more quickly. OCD historically has not required operators to conduct inspections on a specified frequency

19.15.28.8 NMAC

VENTING AND FLARING OF NATURAL GAS

Subsection D - Reporting to affected upstream operators

➤ Main point

- Requires midstream operators to notify upstream operators if the natural gas gathering system is not functioning properly so the upstream operators can take appropriate action to reduce venting and flaring

➤ What does this mean?

- Requires operators to coordinate their activities to reduce the incidence and magnitude of venting and flaring caused by problems in natural gas gathering systems. This is a new process being proposed to resolve issues between the parties that we have seen in the past.

19.15.28.8 NMAC

VENTING AND FLARING OF NATURAL GAS

Subsection E - Measurement of vented and flared natural gas

➤ Main point

- Establishes requirements for measuring venting and flaring

➤ What does this mean?

- Implements new expectations because OCD historically has not required measurement of this quality and frequency
- Ensures better measurement practices that provide a more accurate picture of venting and flaring

19.15.28.8 NMAC

VENTING AND FLARING OF NATURAL GAS

Subsection-F, Reporting of vented or flared natural gas.

This regulation is similar in regulation and intent as the corresponding Part 27.8.G

➤ Main points

- Establishes requirements for reporting volumes of vented and flared natural gas
- Changes the intent of the C-129 from an authorization form to a reporting form
- Allows the C-129 to be used in lieu of a C-141 when reporting a gas only release

➤ What does this mean?

- Reforms the current reporting system, which is inadequate and unreliable. OCD does not have sufficient credible data to understand the frequency and location of venting and flaring in the state. The new reporting system corrects this deficiency by requiring operators to provide detailed and accurate data to guide compliance review and future regulatory actions.

19.15.28.9 NMAC

LOCATION REQUIREMENTS

This section requires midstream operators to provide maps of natural gas gathering systems so that OCD can promptly respond to emergencies and other events.

➤ Main Points

- Maps must identify pipeline ownership, type and location
- Maps must be updated annually
- Maps must include a GIS layer identifying the date, location and volume of vented or flared natural gas for each emergency, malfunction, or release

➤ What does this mean?

- OCD historically has struggled to identify the owner and type of pipeline during emergencies. This information will enable OCD to quickly identify the owner and characterize the risk using current information
- Allows OCD to identify commonly occurring problems for natural gas gathering systems
- Provides operators with a comprehensive accounting of occurring issues to identify problem areas

19.15.28.10 NMAC

STATEWIDE NATURAL GAS CAPTURE

This section establishes the gas capture requirements and accounting methods.

Subsection A – Statewide Natural gas capture requirements

This regulation is similar in regulation and intent as the corresponding Part 27.9.A

➤ **Main points**

- Establishes the operator's natural gas capture requirement as 98% by December 31, 2026
- Requires the operator to achieve annual increments of gas capture over five years
- Applies separately to the north and south halves of the state to address gathering system differences

➤ **What does this mean?**

- Implements a new expectation by having a natural gas capture requirement
- Holds all operators to the same standard but allows the operators to follow different paths to compliance depending on their benchmark performance in 2021

19.15.28.10 NMAC

STATEWIDE NATURAL GAS CAPTURE

Subsection B - Accounting

This regulation is similar in regulation and intent as the corresponding Part 27.8.E, for regulating upstream operators.

➤ Main points

- Establishes the accounting requirements for venting and flaring, including the method for calculating the natural gas capture percentage
- Incentivizes the use of Advanced Leak and Repair Monitoring Technology (ALARM) to detect and fix leaks

➤ What does this mean?

- Ensures that operators use a standardized approach to demonstrate compliance
- Creates a partnership between OCD and operators to improve field practices and encourage an industry culture that reduces the waste of natural gas and protects correlative rights, public health, and the environment

19.15.28.10 NMAC

STATEWIDE NATURAL GAS CAPTURE

Subsection C – Third party verification

This regulation is similar in regulation and intent as the corresponding Part 27.9.C

➤ Main points

- Authorizes OCD to require third party verification of reported volumes of venting and flaring

➤ What does this mean?

- Establishes OCD's authority to review the operator's data collection and reporting practices
- Provides a collaborative tool for OCD and operators to review concerns without having to file an enforcement action

OCC's HISTORIC OBJECTIVE TO REDUCE WASTE

On December 1, 1970, OCC adopted Order R-4070 to reduce venting and flaring at upstream and midstream operations.

R-4070 FINDINGS AND ORDER

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That substantial amounts of casinghead gas produced from oil wells in the State of New Mexico are presently being flared or vented to the atmosphere.

(3) That the flaring or venting to the atmosphere of substantial amounts of casinghead gas results in the unnecessary or excessive surface loss or destruction without beneficial use of much of such natural gas.

(4) That in order to prevent the unnecessary or excessive surface loss of a valuable natural resource, the wasteful flaring or venting of casinghead gas should be prohibited.

IT IS THEREFORE ORDERED:

(1) That, except as provided in this order, no casinghead gas produced from any well in this state located in a pool having a gas gathering facility shall be flared or vented on or after January 1, 1971, or 60 days from the date such well is completed, whichever is later.

(2) That, except as provided in this order, no casinghead gas produced from any well in this state completed after January 1, 1971, shall be flared or vented after 60 days following completion of the well.

(3) That any operator who desires to obtain an exception to the foregoing provisions shall file an application in triplicate with the appropriate district office of the Oil Conservation Commission upon a form designated by the Commission. The district supervisors are hereby authorized to grant such exception whenever the granting of the exception is reasonably necessary to protect correlative rights, prevent waste or prevent undue hardship on the applicant. The district supervisor shall either grant the exception within 10 days after receipt of the application or refer it to the Secretary-Director of the Commission who will advertise the matter for public hearing if a hearing is desired by the applicant.

(4) That the flaring or venting by an operator of gas from any well in violation of this order will result in suspension of the allowable of the affected well or wells.

(5) That no extraction plant processing any gas in the State of New Mexico shall flare or vent such gas unless such flaring or venting is made necessary by mechanical difficulty

OCC's HISTORIC OBJECTIVE TO REDUCE WASTE

On August 30, 1972, OCC revisited the issue and adopted Order R-4382, which established the current regulations for venting and flaring. These regulations have not changed in 48 years despite changes in our understanding of the economic, environmental and social costs and significant advances in technology.

R-4382 FINDINGS AND ORDER

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That by Order No. R-4070 dated December 1, 1970, the Commission prohibited the flaring or venting of casinghead gas from any well in the State or from any extraction plant in the State except under certain limited and specified conditions.
- (3) That after a period of time in which to test the efficacy of said order and the provisions contained therein, the Commission believes that said order has been a useful tool in promoting the beneficial use of even small amounts of casinghead gas and has been in the interest of conservation and the prevention of waste.

IT IS THEREFORE ORDERED:

(1) That Rule 306 of the Commission Rules and Regulations is hereby amended to read in its entirety as follows:

"RULE 306. CASINGHEAD GAS

- (a) No casinghead gas produced from any well in this state shall be flared or vented after 60 days following completion of the well.
- (b) Any operator seeking an exception to the foregoing shall file an application therefor on Commission Form C-129, Application for Exception to No-Flare Rule 306. Form C-129 shall be filed in triplicate with the appropriate district office of the Commission. The district supervisor may grant an exception when the same appears reasonably necessary to protect correlative rights, prevent waste, or prevent undue hardships on the applicant. The district supervisor shall either grant the exception within ten days after receipt of the application or refer it to the Secretary-Director of the Commission who will advertise the matter for public hearing if a hearing is desired by the applicant.
- (c) The flaring or venting by an operator of gas from any well in violation of this rule will result in suspension of the allowable assigned to the well.
- (d) No extraction plant processing gas in the State of New Mexico shall flare or vent such gas unless such flaring or venting is made necessary by mechanical difficulty of a very limited temporary nature or unless the gas flared or vented is of no commercial value.

In the event of more prolonged mechanical difficulty or in the event of plant shut-downs or curtailment because of scheduled or non-scheduled maintenance or testing operations or other reasons, or in the event a plant is unable to accept, process, and market all of the casinghead gas produced by wells connected to its system, the plant operator shall notify the

SUMMARY OF PARTS 27 & 28

- These rules update the OCD's expectations regarding waste from venting and flaring based on current technology. This level of change in waste regulations in New Mexico has not been substantially undertaken or seen in the last 48 years.
- These rule establish standardized inspections, granular reporting requirements and specific process guidelines that provide a comprehensive path for reducing the waste of natural gas in New Mexico.
- Robust stakeholder engagement allowed OCD to gather key information from a variety of technical experts and incorporate it into the proposed rules. This cooperation with stakeholders and other agencies has created achievable and enforceable rules for New Mexico.
- These rules taken into consideration technology advances and allow operators to chart their own path to compliance with the overall state goal of 98% gas capture or better by December 31, 2026. This is a progressive set of rules that will reduce waste of natural gas in New Mexico for years to come.

RELATED RULE CHANGES

19.15.7 NMAC - Forms and Reports

19.15.18 NMAC - Production Operating Practices

19.15.19 NMAC - Natural Gas Production Operating Practices

➤ Subsequent slides identify rationale for rule change in **blue font**

19.15.7 NMAC FORMS AND REPORTS

19.15.7.1 NMAC - ISSUING AGENCY

~~Energy, Minerals and Natural Resources Department, Oil Conservation Division]~~ Oil Conservation Commission.

Identifies correct agency

19.15.7.8(D) NMAC - GENERAL

Inserts new paragraph 18: “C-115B - volume of vented and flared natural gas”

Adjusts numbering of subsequent paragraphs.

Inserts new paragraphs 57 and 58 to add new forms to accommodate OCC’s adoption of changes to 19.15.34 NMAC – Produced Water, Drilling Fluids and Liquid Oil Field Waste

19.15.7 NMAC FORMS AND REPORTS

19.15.7.24(B) NMAC - OPERATOR'S MONTHLY REPORT (C-115)

B. An operator shall file [~~the reports 19.15.7.24 NMAC requires~~] form C-115 using the division's web-based online application on or before the 15th day of the second month following the month of production [~~, or if such day falls on a weekend or holiday, the first workday following the 15th~~]. An operator may apply to the division for exemption from the electronic filing requirement based upon a demonstration that such requirement would [~~operate as~~] be an economic or other hardship

Identifies specific form and clarifies language

19.15.7 NMAC FORMS AND REPORTS

19.15.7.25 NMAC - VENTED AND FLARED NATURAL GAS (Form C-115B)

A. An operator shall file form C-115B in accordance with 19.15.27 NMAC and 19.15.28 NMAC.

B. An operator shall file form C-115B using the division's web-based online application on or before the 15th day of the second month following the month in which venting or flaring occurred. An operator may apply to the division for exemption from the electronic filing requirement based upon a demonstration that such requirement would be an economic or other hardship.

[19.15.7 NMAC – N, xx/xx/xxxx]

Adds new form required by Parts 27 and 28

Renumbers subsequent sections

19.15.7 NMAC FORMS AND REPORTS

19.15.7.37 NMAC - APPLICATION FOR EXCEPTION TO NO FLARE (Form C-129)

~~[19.15.7.37 — APPLICATION FOR EXCEPTION TO NO FLARE (Form C-129):]~~ 19.15.7.38 REPORT OF VENTED OR FLARED NATURAL GAS (Form C-129): An operator shall file form C-129 when applicable, in accordance with ~~[19.15.18.12]~~ 19.15.27 NMAC and 19.15.28 NMAC.

Identifies correct references

Renumbers section

19.15.18 NMAC

PRODUCTION OPERATING PRACTICES

19.15.18.1 NMAC - ISSUING AGENCY

~~Energy, Minerals and Natural Resources Department, Oil Conservation Division]~~ Oil Conservation Commission.

Identifies correct agency

19.15.18.3 NMAC - STATUTORY AUTHORITY

19.15.18 NMAC is adopted pursuant to the Oil and Gas Act, [~~NMSA 1978,~~] Section 70-2-6, Section 70-2-11 and Section 70-2-12 NMSA 1978.

Corrects form of citation

19.15.18.8(F) & (K) NMAC - GAS-OIL RATIO AND PRODUCTION TESTS

F. During a gas-oil ratio test, an operator shall not produce a well at a rate exceeding the top proration unit allowable for the pool in which it is located by more than [~~25~~] twenty-five percent.

K. During the productivity test, an operator shall not produce a well at a rate exceeding the top proration unit allowable for the pool in which it is located by more than [~~25~~] twenty-five percent.

Conforms language to State Records Center rules

19.15.18 NMAC

PRODUCTION OPERATING PRACTICES

19.15.18.11 NMAC – Metered Casinghead Gas

19.15.18.12 NMAC – Casinghead Gas

Removes sections replaced by Parts 27 and 28

Reserves sections to avoid need to renumber subsequent sections

19.15.18.14 NMAC [~~SALT OR SULPHUR~~] PRODUCED WATER: An operator shall report monthly on form C-115 the amount of water produced with the oil and gas from each well.

Conforms title to current usage

19.15.18.16(B) NMAC - TANKS, OIL TANKS FIRE WALLS AND TANK IDENTIFICATION

The operator shall identify oil tanks, tank batteries, ACT systems, tanks used for [~~salt~~] produced water collection or disposal and tanks used for sediment oil treatment or storage by a sign posted on or not more than 50 feet from the tank, tank battery or system

Conforms language to current usage

19.15.19 NMAC, NATURAL GAS PRODUCTION OPERATING PRACTICES

19.15.19.1 NMAC - ISSUING AGENCY

~~Energy, Minerals and Natural Resources Department, Oil Conservation Division]~~ Oil Conservation Commission.

Identifies correct agency

19.15.19.3 NMAC - STATUTORY AUTHORITY

19.15.19 NMAC is adopted pursuant to the Oil and Gas Act, [~~NMSA 1978,~~] Section 70-2-6, Section 70-2-11 and Section 70-2-12 NMSA 1978.

Corrects form of citation

19.15.19 NMAC, NATURAL GAS PRODUCTION OPERATING PRACTICES

19.15.19.10 NMAC - GAS UTILIZATION

~~19.15.19.10 **GAS UTILIZATION:** After the completion of a gas well, the operator shall not permit gas from the well to escape to the air, use the gas expansively in engines or pumps and then vent or use the gas to gas-lift wells unless all gas produced is processed in a gasoline plant or beneficially used thereafter without waste.]~~

~~**[RESERVED]**~~

Removes section replaced by Part 27

Reserves section to avoid need to renumber subsequent sections

CONCLUSIONS

The proposed rules satisfy OCC's executive, statutory, and administrative objectives by:

- Implementing the Governor's mandate to establish a statewide, enforceable regulatory framework to reduce methane emissions in the oil and gas sector
- Preventing waste and protecting correlative rights, public health and the environment
- Establishing rules using the best available science, employing creative engineering and technological solutions, engaging communities and stakeholders, and ensuring meaningful compliance
- Standardizing the requirements for inspections and reporting across the oil and gas sector
- Providing flexibility for operators to adopt new technologies rather than prescribing engineering solutions
- Fulfilling OCC's historic objective to reduce natural gas waste