

**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION COMMISSION**

**APPLICATION OF OIL CONSERVATION DIVISION
TO ADOPT 19.15.27 NMAC AND 19.15.28 NMAC, AND
TO AMEND 19.15.7 NMAC, 19.15.18 NMAC, AND
19.15.19 NMAC; STATEWIDE**

CASE NO. 21528

**NMOGA'S NOTICE OF PROPOSED CHANGES TO THE DIVISION'S FINAL
PROPOSED RULES**

Pursuant to Commission Order R-21540-F addressing post-hearing filings, NMOGA files proposed changes to the Division's revised proposed rule set forth in OCD Exhibit 2D (Part 27) and OCD Exhibit 3D (Part 28). NMOGA's proposed changes are provided in redline strikeout format under NMOGA Exhibit A-1 (Part 27) and NMOGA Exhibit B-1 (Part 28), filed herewith, along with a description of the evidence and supporting citations in blue text below each proposed change.

Respectfully submitted,

HOLLAND & HART, LLP



Michael H. Feldewert
Adam G. Rankin
Post Office Box 2208
Santa Fe, New Mexico 87504
TEL: (505) 988-4421
FAX: (505) 983-6043 Facsimile
mfeldewert@hollandhart.com
agrarkin@hollandhart.com

ATTORNEYS FOR NEW MEXICO OIL & GAS ASSOCIATION

CERTIFICATE OF SERVICE

I hereby certify that on February 5, 2021, I served a copy of the foregoing document to the following counsel of record via Electronic Mail to:

Eric Ames
Assistant General Counsel
New Mexico Energy, Minerals, and
Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
(505) 476-3463
(505) 476) 476-3220 FAX
eric.ames@state.nm.us

Tannis Fox
Erik Schlenker-Goodrich
Western Environmental Law Center
208 Paseo del Pueblo Sur, #602
Taos, New Mexico 87571
TF: 505.629.0732
ES-G: 575.613.4197
fox@westernlaw.org
eriksg@westernlaw.org

***Attorney for New Mexico Oil Conservation
Division***

***Attorneys for Center for Civic Policy,
Conservation Voters New Mexico, Dine
C.A.R.E., San Juan Citizens Alliance, and
Earthworks, Natural Resources Defense
Council, Sierra Club and 350 New Mexico***

David R. Baake
2131 North Main Street
Las Cruces, New Mexico 88001
575.343.2782
david@baakelaw.com

Elizabeth Paranhos
deLone Law Inc.
1555 Jennine Place
Boulder, CO 80304 303 442-0610
elizabethparanhos@delonelaw.com

Attorney for Sierra Club

Attorney for Environmental Defense Fund

Ari Biernoff
General Counsel
New Mexico State Land Office
P.O. Box 1148
Santa Fe, New Mexico 87501-1148
(505) 827-5756
abiernoff@slo.state.nm.us

***Attorney for Commissioner of Public Lands
Stephanie Garcia Richard and New Mexico
State Land Office***



Michael H. Feldewert

- (1) the operator’s failure to install appropriate equipment of sufficient capacity to accommodate the anticipated or actual rate and pressure of production;
- (2) except as provided in subparagraph (4), the operator’s failure to limit production when the production rate exceeds the capacity of the related equipment or natural gas gathering system as defined in 19.15.28 NMAC, or exceeds the sales contract volume of natural gas;
- (3) scheduled maintenance;
- (4) venting or flaring of natural gas for more than ~~four~~ eight hours after notification that is caused by an emergency, unscheduled maintenance, or malfunction of a natural gas gathering system;

The Division acknowledges operators should be allowed sufficient time to respond after notification of an upset event caused by a gathering system without creating unnecessary risks in the field. *See* Day 3 Tr. 161 (Lepore). The Division conducted no analysis or study to support its proposed four-hour time limit. *See* Day 3 Tr. 161 (Lepore). NMOGA presented substantial evidence from those knowledgeable about field activities that eight hours following notification is more appropriate than four hours to properly understand, evaluate and safely address an upset event in a variety of circumstances. *See* Day 4 Tr. 214-215, 218-224 (Smitherman); Day 6 Tr. 124-134, 175-76 (Iannuzzi); NMOGA Ex. E-2. Shutting-in wells is not always preferable, and personnel are needed at the site to properly evaluate and implement the appropriate response. *See* Day 6 Tr. 12-13 (Smitherman, questions from Commissioner Sandoval).

- (5) the operator’s negligence, ~~including a recurring equipment failure~~;
- or

NMOGA presented substantial evidence that recurring equipment failure is part of the diagnostic and troubleshooting process for complicated equipment, is not always the result of operator negligence and should not automatically be deemed negligence. *See* Day 4 Tr. 225-227 (Smitherman); Day 6 Tr. 190-194, 312 (Reinermann); NMOGA Exs. F7 and F8; Day 7 Tr. 11-12 (Leonard). The Division presented no evidence justifying the treatment of all recurring equipment failures as operator negligence.

- (6) three or more emergencies **at one site for similar causes** within a single reporting area pursuant to Subsection A of 19.15.27.9 NMAC experienced by the operator within the preceding 60 days, unless the division determines the operator could not have reasonably anticipated the current event and it was beyond the operator’s control.

The Division suggests this provision only applies to “a fourth or subsequent emergency” and is “more generous” than the corresponding BLM provision. *See* Division Ex. 4C at p. 2. That is not correct. First, this provision requires a venting or flaring event caused by a third emergency to be reported against an operator’s monthly gas capture requirements if it occurs within a 60-day period. *See* Day 3 Tr. 164 (Lepore); Day 10 Tr. 45-46 (Bolander); Day 6 Tr. 195 (Reinermann). The corresponding BLM provision does not apply until there is a fourth emergency at the same “lease, unit or communitized area” within a 30-day period. 43 C.F.R §3179.103 (Referenced in OCD Ex. 37). The Division’s proposal reduces the authorized events from three to two, doubles the time period within which a third emergency is arbitrarily removed from qualification as an emergency (30-days to 60-days) and extends to all operated sites not just the same “lease, unit or communitized area.” *Id.* *See also* Day 10 Tr. 47-49 (Bolander); Day 10 Tr. 177-78 (Powell/Bolander, questions from Commissioner Sandoval). The Division further acknowledged that the process and timing for Division action under the last clause is unknown and may not occur before the monthly reporting obligation. *See* Day 3 Tr. 164-65 (Lepore). NMOGA presented substantial evidence demonstrating why “at one site for similar causes” is an appropriate and necessary limitation on this provision. *See* Day 4 Tr. 228-230, 234-35 (Smitherman); Day 6 Tr. 195-200 (Reinermann); NMOGA Ex. F8-F9; Day 7 Tr. 12-16 (Leonard); NMOGA Exs. G2-G3.

- I. “Flare” or “Flaring” means the controlled combustion of natural gas in a device designed for that purpose.
- J. “Flare stack” means a device equipped with a burner used to flare natural gas.
- K. “Gas-to-oil ratio (GOR)” for purposes of 19.15.27 NMAC means the ratio of natural gas to oil in the production stream expressed in standard cubic feet of natural gas per barrel of oil.
- L. “Initial flowback” means the period during completion operations that begins with the onset of flowback and concludes when it is technically feasible for a separator to function.

M. “**Malfunction**” means a sudden, unavoidable failure or breakdown of equipment beyond the reasonable control of the operator that substantially disrupts operations, 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.

N. “**N₂**” means nitrogen gas.

O. “**Natural gas**” means a gaseous mixture of hydrocarbon compounds, primarily composed of methane, and includes both casinghead gas and gas as those terms are defined in 19.15.2 NMAC.

P. “**Production operations**” means the period that begins 31 days following the commencement of initial flowback and concludes when the well is plugged and abandoned.

Q. “**Producing in paying quantities**” mean the production of a quantity of oil and gas that yields revenue in excess of operating expenses.

R. “**Separation flowback**” means the period during completion operations that begins when it is technically feasible for a separator to function and concludes no later than 30 days after the commencement of initial flowback.

S. “**Vent**” or “**Venting**” means the release of uncombusted natural gas to the atmosphere but does not include:

(1) the emission of gas from devices or equipment, such as pneumatic devices and pneumatic pumps, that are designed to emit as part of normal operations if such emissions are not prohibited by New Mexico Environment Department, Environmental Protection Agency or tribal authority;

(2) unintentional leaks that are not the result of inadequate equipment design; and

(3) natural gas released from, or downstream of, a tank unless there is no separation occurring at equipment upstream of the tank; the separation equipment is not sufficiently sized to capture the entrained gas; or the natural gas is sent to the Tank during circumstances when the gas cannot be sent to the gathering line or the combustion equipment used to Flare the gas is not operating.

See NMOGA Ex. C9; Day 4 Tr. 254-259 (Smitherman). See also justification statements under NMOGA Exhibit A and NMOGA’s Closing Argument.

.15.27.7 NMAC – N, xx/xx/xxxx]

19.15.27.8 VENTING AND FLARING OF NATURAL GAS:

A. Venting or flaring of natural gas during drilling, completion, or production operations that constitutes waste as defined in 19.15.2 NMAC is prohibited. The operator has a general duty to ~~maximize the recovery of natural gas and~~ minimize the waste of natural gas through venting and flaring. During drilling, completion and production operations, the operator may vent or flare natural gas only as authorized in Subsections B, C and D of 19.15.27.8 NMAC. In all circumstances, the operator shall flare 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.

See Day 3 Tr. 131-134 (Lepore). See also justification statements under NMOGA Exhibit A.

B. Venting and flaring during drilling operations.

(1) The operator shall capture or combust natural gas if ~~technically feasible~~ **reasonably practical** using best industry practices and control technologies.

See Day 5 Tr. 34 (Smitherman). See also justification statements under NMOGA Exhibit A.

(2) A flare stack shall be located at a minimum of 100 feet from the nearest surface hole location unless otherwise approved by the division.

(3) In an emergency or malfunction, the operator may vent natural gas to avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment. The operator shall report natural gas vented or flared during an emergency or malfunction to the division pursuant to Paragraph (1) of Subsection G of 19.15.27.8 NMAC.

C. Venting and flaring during completion or recompletion operations.

(1) During initial flowback, the operator shall route flowback fluids into a completion or storage tank and flare rather than vent if technically feasible under the applicable well conditions 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 from the separation equipment:

(a) to a gas flowline or collection system, reinject into the well, or use on-site as a fuel source or other purpose that a purchased fuel or raw material would serve; or

(b) to a flare if routing the natural gas to a gas flowline or collection system, reinjecting it into the well, or using it on-site as a fuel source or other purpose that a purchased fuel or raw material would serve would pose a risk to safe operation or personnel safety.

(3) If natural gas does not meet gathering pipeline quality specifications, the operator may flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner, provided that:

(a) the flare stack is equipped with an automatic igniter or continuous pilot;

(b) the operator analyzes natural gas samples ~~twice at least~~ once per week;

See Day 5 Tr. 47-48 (Smitherman). See also the justification statements under NMOGA Exhibit A.

(c) the operator routes the natural gas into a gathering pipeline as soon as the pipeline specifications are met; and

(d) the operator provides the pipeline specifications and natural gas analyses to the division upon request.

D. Venting and flaring during production operations. The operator shall not vent or flare natural gas except:

(1) during an emergency or malfunction;

(2) to unload or clean-up liquid holdup in a well to atmospheric pressure, provided

(a) the operator does not vent after the well achieves a stabilized rate and pressure;

(b) for liquids unloading by manual purging, the operator remains present on-site ~~or posts at the well site the contact information of the personnel conducting the liquids unloading operation and ensures that personnel remains within 30 minutes' drive time of the well being unloaded~~ until the end of unloading, takes ~~all~~ reasonable actions to achieve a stabilized rate and pressure at the earliest practical time and takes ~~all~~ reasonable actions to minimize venting to the maximum extent practicable;

NMOGA proposes this language to replace “or in close proximity” to address the concerns and suggestions raised by the Commissioners during the hearing, and to allow operators the flexibility needed to efficiently bring multiple wells back online following a shut-down event. See Day 5 Tr. 75-77 (Smitherman); 357 (Smitherman, questions from Commissioner Sandoval); Day 7 Tr. 87-93 (Davis); Tr. 109-111 (Davis, questions from Commissioner Engler); Tr. 112-113 (Davis, questions from Commissioner Kessler), Tr. 113-116 (Davis, questions from Commissioner Sandoval); NMOGA Ex. H9.

(c) for a well equipped with a plunger lift system or an automated control system, the operator optimizes the system to minimize the venting of natural gas; or

(d) during downhole well maintenance, only when the operator uses a workover rig, swabbing rig, coiled tubing unit or similar specialty equipment and minimizes the venting of natural gas to the extent that it does not pose a risk to safe operations and personnel safety and is consistent with best management practices;

(3) during the first 12 months of production from an exploratory well, or as extended by the division for good cause shown, provided:

(a) the operator proposes and the division approves the well as an exploratory well;

(b) the operator is in compliance with its statewide gas capture requirements; and

(c) within 15 days of determining an exploratory well is capable of producing in paying quantities, the operator submits an updated form C-129 to the division, including a natural gas management plan and timeline for connecting the well to a natural gas gathering system or as otherwise approved by the division; or

- (4) during the following activities unless prohibited by applicable state or federal law, rule, or regulation for the emission of hydrocarbons and volatile organic compounds:
- (a) gauging or sampling a storage tank or other low-pressure production vessel;
 - (b) loading out liquids from a storage tank or other low-pressure production vessel to a transport vehicle;
 - (c) repair and maintenance, including blowing down and depressurizing production equipment to perform repair and maintenance;
 - (d) normal operation of a gas-activated pneumatic controller or pump;
 - (e) normal operation of a storage tank or other low-pressure production vessel, but not including venting from a thief hatch, located on a tank routed to a flare or control device, that is not properly closed or maintained on an established schedule;
 - (f) normal operation of dehydration units and amine treatment units;
 - (g) normal operations of compressors, compressor engines, and turbines;
 - (-) **normal, unintentional leaks that are not the result of inadequate equipment design or maintenance;**

NMOGA proposes this language to replace “fugitive emissions components, such as valves, flanges, or connectors” in subparts 27.8.D.4 and 28.8.B.3 in NMOGA Exhibits A and B. This language is from the Colorado definition of venting and addresses the Commission’s desires to place restrictions on this necessary authorization. *See* NMOGA Ex. C9; Day 5 Tr. 28-30 (Smitherman), Day 5 Tr. 351-354 (Smitherman, questions from Commissioner Sandoval); Day 6 Tr. 209-211, 268-270, 314-316 (Reinermann), 277-78 (Reinermann, questions from Commissioner Sandoval); NMOGA Exs. F15-F-17. This language is also necessary to capture the allowances authorized by the Colorado definition of venting that the Division stated is intended to be captured by this subpart. *See* OCD Exhibit 4C at line 15; Day 10 Tr. 50 (Bolander).

- (h) a bradenhead test;
- (i) a packer leakage test;
- (j) a production test lasting less than 24 hours unless the division requires or approves a longer test period;
- (k) when natural gas does not meet the gathering pipeline specifications, provided the operator analyzes natural gas samples ~~twice~~ **at least once** per week to determine whether the specifications have been achieved, routes the natural gas into a gathering pipeline as soon as the pipeline specifications are met and provides the pipeline specifications and natural gas analyses to the division upon request; or

See Day 5 Tr. 47-48 (Smitherman). *See also* justification statements under NMOGA Exhibit A.

(l) Commissioning of pipelines, equipment, or facilities only for as long as necessary to purge introduced impurities from the pipeline or equipment.

E. Performance standards for separation, storage tank and flare equipment.

- (1) The operator shall design completion and production separation equipment and storage tanks for maximum anticipated throughput and pressure to minimize waste.
- (2) The operator of a permanent storage tank associated with production operations that is routed to a flare or control device installed after {effective date of rule} shall equip the storage tank with an automatic gauging system that reduces the venting of natural gas.
- (3) The operator shall combust natural gas in a flare stack that is properly sized ~~and designed, and operated~~ **to ensure proper maximize flare** combustion efficiency.

See Day 6 Tr. 139-146 (Iannuzzi); NMOGA Ex. E4.

- (a) A flare stack installed or replaced after May 31, 2021 shall be equipped with an automatic ignitor or continuous pilot.
- (b) A flare stack installed before June 1, 2021 shall be retrofitted with an automatic ignitor, continuous pilot, or technology that alerts the operator that the flare may have malfunctioned no later than ~~18-24~~ **months after {effective date of rule} or by an alternative date approved by the division.**

See Day 6 Tr. 147-150 (Iannuzzi); NMOGA Ex. E5.

(c) A flare stack located at a well or facility, with an average daily production of equal to or less than 60,000 cubic feet of natural gas shall be equipped with an automatic ignitor or continuous pilot if the flare stack is replaced after {effective date of the rule}.

(4) A flare stack constructed after {effective date of rule} shall be securely anchored and located at least 100 feet from the well and storage tanks unless otherwise approved by the division.

(5) **For equipment that is not subject to AVO inspections by the New Mexico Environment Department or other state, federal or tribal agency,** the operator shall conduct an AVO inspection on the frequency specified below to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

See Day 5 Tr. 98 (Smitherman); Day 6 Tr. 226-228 (Reinermann). See also the justification statement under NMOGA Exhibit A.

(a) During an AVO inspection the operator shall inspect all components, including flare stacks, thief hatches, closed vent systems, pumps, compressors, pressure relief devices, valves, lines, flanges, connectors, and associated piping to identify defects, leaks, and releases by:

(i) visually inspecting externally for cracks and holes; loose connections; leaks; broken and missing caps; broken, damaged seals and gaskets; broken, missing and open hatches; broken, missing and open access covers and closure devices; and to ensure a flare stack is operating in conformance with its design;

(ii) listening for pressure and liquid leaks; and

(iii) smelling for unusual and strong odors.

(b) The operator shall conduct an AVO inspection ~~weekly~~ **monthly**:

(i) during the first year of production; and

(ii) on a well or facility with an average daily production greater than

60,000 cubic feet of natural gas.

Experience has shown monthly AVO inspections and associated recordkeeping requirements achieve the goal of identifying components that are not operating properly and conform with the requirements of other state and federal agencies. See Day 6 Tr. at 218-220 (Reinermann); NMOGA Exs. F21-F22. The Division offered no evidence to dispute this point or to suggest that formal weekly AVO inspections are necessary to accomplish this goal.

(c) The operator shall conduct an AVO inspection ~~weekly if it is on site, and in no case less than once per quarter~~ **calendar month** with at least 20 calendar days between inspections:

(i) on a well or facility with an average daily production equal to or less than 60,000 cubic feet of natural gas; and

(ii) **once per calendar year** on shut-in, temporarily abandoned, or inactive wells.

See Day 6 Tr. 76-119 (Thompson); NMOGA Exhibit D3-D8. See also the justification statements under NMOGA Exhibit A.

(d) The operator shall make and keep a record of an AVO inspection for not less than five years and make such record available for inspection by the division upon request.

(6) Subject to the division's prior written approval, the operator may use a remote or automated monitoring technology to detect leaks and releases in lieu of an AVO inspection.

F. Measurement of vented and flared natural gas.

(1) The operator shall measure or estimate the volume of natural gas that it vents, flares, or beneficially uses during drilling, completion, and production operations regardless of the reason or authorization for such venting or flaring.

(2) The operator shall install equipment to measure the volume of natural gas vented or flared from existing process piping or a flowline piped from equipment such as high pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 31, 2021 that has an average daily production greater than 60,000 cubic feet of natural gas.

(3) Measuring equipment shall conform to an industry standard such as American Petroleum Institute (API) Manual of Petroleum Measurement Standards (MPMS) Chapter 14.10 Measurement of Flow to Flares.

(4) Measuring equipment shall not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

(5) If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, the operator may estimate the volume of vented or flared natural gas using a methodology that can be independently verified.

(6) For a well that does not require measuring equipment, the operator shall estimate the volume of vented and flared natural gas based on the result of an annual GOR test for that well reported on form C-116 to allow the division to independently verify the volume ~~and, rate, and heating value~~ of the flared natural gas.

See Day 7 Tr. 157-158 (Greaves). The Division has offered no evidence to support the phrase "heating value," which has no applicability to a GOR test.

(7) The operator shall install measuring equipment whenever the division determines that metering is practicable or the existing measuring equipment or GOR test is not sufficient to measure the volume of vented and flared natural gas.

G. Reporting of vented or flared natural gas.

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

(a) The operator shall notify the division of venting or flaring that exceeds 50 MCF in volume and either results from an emergency or malfunction, or lasts eight hours or more cumulatively within any 24-hour period from a single event by filing a form C-129 in lieu of a C-141, except as provided by Subparagraph (d) of Paragraph (1) of Subsection G of 19.15.27.8 NMAC, with the division as follows:

(i) for venting or flaring that equals or exceeds 50 MCF but less than 500 MCF from a single event, notify the appropriate division district office in writing by filing a form C-129 no later than 15 days following discovery or commencement of venting or flaring;

(ii) for venting or flaring that equals or exceeds 500 MCF or otherwise qualifies as a major release as defined in 19.15.29.7 NMAC from a single event, notify the appropriate division district office verbally or by e-mail as soon as possible and no later than 24 hours following discovery or commencement of venting or flaring and provide the information required in form C-129. No later than 15 days following the discovery or commencement of venting or flaring, the operator shall file a form C-129 that verifies, updates, or corrects the verbal or e-mail notification; and

(iii) no later than 15 days following the termination of venting or flaring, notify the division by filing a form C-129.

(b) The operator shall provide and certify the accuracy of the following information in the form C-129:

- (i) operator's name;
- (ii) name and type of facility;
- (iii) equipment involved;
- (iv) compositional analysis of vented or flared natural gas that is representative of the well or facility;
- (v) date(s) and time(s) that venting or flaring was discovered or commenced and terminated;
- (vi) measured or estimated volume of vented or flared natural gas;
- (vii) cause and nature of venting or flaring;
- (viii) steps taken to limit the duration and magnitude of venting or flaring;

and

(ix) corrective actions taken to eliminate the cause and recurrence of venting or flaring.

(c) At the division's request, the operator shall provide and certify additional information by the specified date.

(d) The operator shall file a form C-141 instead of a form C-129 for a release which includes liquid during venting or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.

(2) **Monthly reporting of vented and flared natural gas.** For each well or facility at which venting or flaring occurred, the operator shall separately report the volume of vented natural gas and volume of flared natural gas for each month in each category listed below. Beginning July 1, 2021, the operator shall gather data for quarterly reports in a format specified by the division and submit by November 15, 2021 for the third quarter and February 15, 2022 for the fourth quarter. **Unless otherwise approved by the division, beginning January 2022, the operator shall submit a form C-115B monthly on or before the 15th day of the second month following the month in which it vented or flared natural gas.** The operator shall specify whether it estimated or measured each reported volume. In filing the initial report, the operator shall provide the methodology (measured or estimated using calculations and industry standard factors) used to report the volumes and shall report changes in the methodology on future forms. The operator shall make and keep records of the measurements and estimates, including records showing how it calculated the estimates, for no less than five years and make such records available for inspection by the division upon request. The categories are:

Undisputed evidence was presented on the complexity of production accounting systems and that it may take operators more than a year to modify their systems to accommodate the monthly reporting required by this proposed rule. *See* Day 8 Tr. 112-114 (Martinez); Day 8 Tr. 28-35 (Perez). This change will allow the Division to extend the January 2022 deadline for good cause shown without the need for a hearing. *See* Day 8 Tr. at 70-71 (Perez).

- (a) emergency;
- (b) non-scheduled maintenance or malfunction;
- (c) routine repair and maintenance, including blowdown and depressurization;
- ~~(d) routine downhole maintenance, including operation of workover rigs, swabbing rigs, coiled tubing units and similar specialty equipment;~~
- ~~(e) manual liquid unloading;~~
- ~~(f) uncontrolled storage tanks;~~

The evidence establishes that the emissions from the activities in subparts (d), (e), (f), (i) and (j) do not constitute surface waste, cannot be captured or routed to a sales line, and cannot be accurately measured or estimated. *See* NMOGA Exs. I9, M4-M10. Colorado removed these types of low volume, low-pressure emissions from the definition of venting and does not regulate them as surface waste. *See* NMOGA Ex. C9; Day 10 Tr. 50-53 (Bolander). The Division recognized that low volume and low-pressure events that are “too small to measure,” “not considered waste,” and for which there is “no credible method of estimation” for monthly production volume accounting must be excluded from the reporting obligation. *See* OCD Ex. 4a, Slide 83. *See also* Day 3 Tr. 34 (Lepore) (“Low pressure/low volume loss is not considered waste.”); Tr. 47 – 48 (“[V]enting, at low volume and low pressure does happen in the normal course of events, and is considered infeasible to -- or infeasible or impractical or uneconomic to capture and attempt to put into a sales line. And for that reason it's not considered waste.”); Tr. 198 (“So maybe I will try to say that in the affirmative, that in some sense those [low-pressure, low-volume] losses are necessary and not excessive” and “[w]ould not be considered waste.”); Tr. 205 (“[T]here are circumstances when lost gas is unavoidable and that shouldn't be counted against operations.”). The hearing testimony demonstrates these five categories, four of which are proposed to be counted against operators in the gas capture percentage calculations, must likewise be excluded for these same reasons. *See* NMOGA Exs. I9, M4-M10; Day 5 Tr. 23-27, 137-150, 152-153, 157-161 (Smitherman); Day 6 Tr. 68-73 (Smitherman); Day 7 Tr. 71-86, 100 (Davis); Day 7 Tr. 160-176, 181-183, 231-32 (Greaves); Day 7 Tr. 249-256, 258-270 (Smith); Day 10. Tr. 60 (Bolander, emissions during manual liquids unloading is necessary and provides a beneficial use); Tr. 71-78 (Bolander) (recognizing emissions that are not surface waste are counted against operators).

In addressing changes to the “other” category, the Division stated: “However, OCD recognizes that it would not be appropriate to require operators to report volumes that OCD has determined are not waste.” OCD Ex. 4C at line 85. The Division’s witness further testified that the intent of the 98% gas capture requirement is to address and account for events “causing surface waste” and that the remaining 2% should likewise only address “natural gas waste.” Day 10 Tr. 68-69 (Bolander), Tr. 82 (“We want a gas capture percentage that actually reports gas that should be captured.”) Yet, as currently drafted, “the accounting for the gas capture and what’s counted against operators includes releases that are necessary and unavoidable,” including emissions from the activities in subparts (d), (e), (f) and (j). *See* Day 10. Tr. 60, 71-78 (Bolander). Including emissions from the activities in subparts (d), (e), (f) and (j) that do not constitute waste in the gas capture accounting improperly turns the gas capture requirement into an arbitrary emissions limit from oil and gas operations rather than a requirement addressing surface waste.

The State Land Office further testified a high standard of accuracy is required for reporting the monthly volumes of vented or flared natural gas. *See* Day 8 Tr. 102-105 (Martinez). This same standard was echoed by NMOGA's witness. *See* Day 8 Tr. 27 (Perez). The Division recognized "accurate data is critical to establishing meaningful baselines," monthly production volume reporting categories must be capable of providing "reliable, accurate data," and the purpose is to "provide accurate, detailed reports to the division on a monthly basis" about venting and flaring. OCD Ex. 4a, Slides 16 and 49; Day 3 Tr. 72 (Lepore). *See also* Day 2 Tr. 125 (Polak); Day 10 Tr. 79-82 (Bolander) (gas capture calculations should be based on "accurate data" and "consistent data" that can be ascertained on a monthly volume basis.") The testimony cited above demonstrates this standard cannot be met for categories (d), (e), (f), (i) and (j) and that they must be excluded to avoid the imposition of an arbitrary, inaccurate and unreliable gas capture percentage compliance obligation on operators. *See also* Day 10 Tr. 98 (Bolander) (discrepancies in emission estimation methodologies vary by as much as a factor of 14); Tr. 105-106 (Bolander, noting lack of knowledge on capability of estimation methods and software to account for various operation approaches and equipment design); Day 10 Tr. 201-204 (Greaves) (equation of state software programs do not account for the operational history of tanks when calculating standing and working losses and can provide very different calculations and, while used to design systems, they are not well suited to making calculations for operations for production accounting because they do not take into account the range of operating conditions); Tr. 204 (software programs are programmed for design and permitting which account for "worst case" or "peak" levels but not what happens in reality); Tr. 205-207 (software calculations can be verified by a third party but the calculation may not be accurate for short-range periods); OCD Ex. 46 at pg. 7, n. 7 (API, ANGA. Characterizing Pivotal Sources of Methane Emissions from Natural Gas Production. Sept 21, 2012, retrieved from: <http://www.api.org/~media/Files/News/2012/12-October/API-ANGA-Survey-Report.pdf>).

NMOGA proposes that instead of attempting to estimate monthly volumes from these sources and using these uncertain, estimated volumes to determine the gas capture requirements, the Commission should require operators to provide the Division a copy of the annual greenhouse reports submitted to the EPA and the NMED. While the uncertainties that exist within these emission calculation methodologies prevent the data from being used for monthly production accounting and gas capture compliance determinations, it can provide trending data on the relative contribution of methane emissions from each source category by operator. This will allow the Division to monitor and track the relative contributions of these emissions to an operator's overall air emissions, which we understand to be a goal of the Division, without placing an arbitrary, inaccurate and unreliable gas capture percentage compliance obligation on operators.

- (g) insufficient availability or capacity in a natural gas gathering system during the separation phase of completion operations or production operations;
- (h) natural gas that is not suitable for transportation or processing because ~~the natural gas does not meet gathering pipeline specifications;~~
 - ~~(i) — N₂, H₂S, or CO₂ concentrations do not meet gathering pipeline quality specifications; or~~
 - ~~(ii) — O₂ concentrations do not meet gathering pipeline quality specifications except during commissioning of pipelines, equipment, or facilities pursuant to Subparagraph (l) of Paragraph (4) of Subsection D of 19.15.27.8 NMAC;~~

This change is consistent with the language in 27.8.D(4)(k). The Division did not present any study, analysis or other evidence justifying the treatment of oxygen separately from other impurities that prevent natural gas from meeting pipeline quality specifications. *See* Day 3 Tr. 141, 145 (Lepore); Day 4 Tr. 173 (Powell). NMOGA presented evidence of various necessary and normal operating procedures that can result in the introduction of oxygen into the gas stream requiring flaring for a relatively short period of time. *See* Day 5 Tr. 54-71 (Smitherman) Tr. 317-321 (Smitherman, questions from Commissioner Kessler); NMOGA Exs. C18-C21; Day 7 Tr. 176-180 (Greaves).

As drafted, 27.9.B(3) further treats gas flared for oxygen content as "lost gas" counted against operator when arriving at the gas capture percentage. While the Division stated an intent to remove volumes flared due to oxygen content from the "lost gas" counted against operators, that has not been accomplished by the Division's proposed changes in this section or in 27.9.B(3). *See* Day 10 Tr. 56-57 (Bolander).

~~(i) venting as a result of normal operation of pneumatic controllers and pumps, unless the operator vents or flares less than 500,000 cubic feet per year of natural gas;~~
~~(j) improperly closed or maintained thief hatches on tanks routed to a flare or control device;~~

See above citations under subparts (d)-(f).

(k) venting or flaring in excess of ~~four~~ eight hours that is caused by an emergency, unscheduled maintenance or malfunction of a natural gas gathering system as defined in 19.15.28 NMAC;

See the citations under the definition of emergency.

(l) venting and flaring from an exploratory well; and
(m) other surface waste as defined in 19.15.2.W(1)(b) NMAC that is not described above.

This change is necessary clarify the “waste” referenced by the Division in this subpart.

(3) Upon submittal of the C-115B report, the division will compile and publish an operator’s vented and flared natural gas information for each month on a volumetric and gas capture percentage basis.

(a) Lost natural gas on a volumetric basis shall be calculated by adding the volume of natural gas vented or flared for non-scheduled maintenance and malfunction; routine repair and maintenance including blowdown and depressurization; insufficient availability or capacity in a natural gas gathering system; venting or flaring in excess of eight hours that is caused by an emergency, unscheduled maintenance, or malfunction of a natural gas gathering system; and other surface waste as defined in 19.15.2.W(1)(b) NMAC as illustrated by the following formula:

Lost Gas = Non-Scheduled maintenance and malfunction + Routine repair and maintenance + Insufficient availability or capacity + In excess of eight hours that is caused by an emergency, unscheduled maintenance, or malfunction of a natural gas gathering system + other surface waste as defined in 19.15.2.W(1)(b) NMAC.

(b) The monthly gas capture on a percentage basis shall be calculated by deducting the volume of lost gas reported in (3)(a) above from the total volume of natural gas and divide by the total volume of natural gas produced as illustrated by the following formulas:

Produced Gas = Sales gas + All Non-transported Disposition codes reported on C-115

Monthly Gas Capture % = (Produced gas – Lost gas)/Produced gas

~~(a) To calculate the lost natural gas on a volumetric basis, the operator shall deduct the volume of natural gas sold, used for beneficial use, vented or flared during an emergency, vented or flared because it was not suitable for transportation or processing due to N₂, H₂S, or CO₂ concentrations, or vented or flared from an exploratory well with division approval, from the natural gas produced.~~

~~(b) To calculate the lost natural gas on a percentage basis, the operator shall add the volume of natural gas sold, used for beneficial use, vented or flared during an emergency, vented or flared because it was not suitable for transportation or processing due to N₂, H₂S, or CO₂ concentrations, or vented or flared from an exploratory well with division approval, and divide by the total volume of natural gas produced.~~

The Division correctly notes that NMOGA’s changes reflect deletion of the five reporting categories noted in G(2) above and offers this point as the sole basis for rejecting this clarifying language and formulas. See OCD Ex. 4C at line 86. The testimony demonstrates NMOGA’s changes eliminate the confusion expressed by operators with the Division’s proposed language and properly focuses the calculation of lost gas on the venting and flaring events constituting surface waste that can be accurately measured or estimated. See Day 8 Tr. 36-43 (Perez); NMOGA Ex.

L7. In addition, since the division has now proposed to compile this information, the reference to “the operator” in the OCD’s proposed language is no longer appropriate.

NMOGA has added to the calculation of lost gas “other surface waste as defined in 19.15.2.W(1)(b) NMAC” which the Division now proposes to be reported under 27.8.G.2(m).

(4) Beginning March 2022, the operator shall provide a copy of the C-115B to the New Mexico State Land Office for a well or facility in which the state owns a royalty interest. ~~report the vented and flared natural gas on a volumetric and percentage basis to all owners in the mineral estate being produced by the well or facility on a monthly basis, keep such reports for not less than five years and make such records available for inspection by the division upon request.~~

The Division presented no evidence on the ability of an operator to provide monthly reports to all royalty owners or to suggest that this added burden will prevent waste. The Division acknowledged this provision is based on the erroneous “assumption” that “operators” provide all royalty owners monthly statements and “have an ongoing business relationship” with all royalty owners. See Day 3 Tr. 168 (Lepore); Day 4 Tr. 177-78 (Powell). The Division witnesses acknowledged a lack of understanding and expertise on the contractual arrangements with royalty owners and did not examine the ability of an operator to implement this monthly reporting to all royalty owners. See Day 4 Tr. 98 (Bolander, questions from Commissioner Kessler); Day 4 Tr. 178-80 (Powell) (“witness has already said he has no idea about any of these contractual relationships”); Day 10 Tr. 88 (Powell) (“I’m not a royalty interest owner expert.”) NMOGA presented evidence an operator does not have a contractual relationship with all royalty owners in a spacing unit, does not send monthly statements to all royalty owners in a spacing unit and does not have contact information for all royalty owners in a spacing unit. See Day 5 Tr 172-182 (Smitherman); Day 5 Tr. 298-301 (Smitherman, questions from Commissioner Engler). The Division further acknowledges this reporting burden should not extend to overriding royalty owners because they “do not have correlative rights in the oil and gas being produced by a well or facility.” See Division’s Notice of Filing of Final Proposed Rules. Royalty owners likewise do not have correlative rights in the oil and gas being produced.

The evidence does support providing C-115B forms to the New Mexico State Land Office where it has an interest in the natural gas vented or flared from a well or facility. See Day 5 Tr. 321-324 (Smitherman, questions from Commissioner Kessler).

(5) Upon the New Mexico environment department’s request, the operator shall promptly provide a copy of any form filed pursuant to 19.15.27 NMAC.
[19.15.27.8 NMAC – N, xx/xx/xxxx]

19.15.27.9 STATEWIDE NATURAL GAS CAPTURE REQUIREMENTS:

A. Statewide natural gas capture requirements. Commencing January 1, 2022, the operator shall reduce the annual volume of vented and flared natural gas in order to capture no less than ninety-eight percent of the natural gas produced from its wells in each of two reporting areas, one north and one south of the Township 10 North line, by December 31, 2026. The division shall calculate and publish each operator’s baseline natural gas capture rate based on the operator’s 2021 quarterly reports as per paragraph 2 of subsection G of 19.15.27.8 NMAC. In each calendar year between January 1, 2022 and December 31, 2026, the operator shall increase its annual percentage of natural gas captured in each reporting area in which it operates based on the following formula: (2021 baseline loss rate minus two percent) divided by five.

(1) The following table provides examples of the formula based on a range of baseline natural gas capture rates.

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%
-------	------------

(2) If the operator’s baseline capture rate is less than sixty percent, the operator shall submit by the specified date to the division for approval a plan to meet the minimum required annual capture percentage increase.

(3) An operator’s acquisition of one or more wells from another operator shall not affect its annual natural gas capture requirements. No later 60 days following the acquisition, the operator may file a written request to the division requesting to modify its gas capture percentage requirements for good cause based on its acquisition. The division may approve, approve with conditions, or deny the request in its sole discretion.

(4) No later than March 30 following the reporting year, an operator that has not met its annual natural gas capture requirement for the previous year shall submit to the division a compliance plan demonstrating its ability to comply with its annual gas capture requirement for the current year. If the division determines, after a reasonable opportunity to meet with the operator, that the compliance plan does not demonstrate the operator’s ability to comply with its annual gas capture requirement for the current year the operator’s approved APDs for wells that have not been spud shall be suspended pending a division hearing to be held no later than 30 days after the determination. Nothing in this subparagraph shall prevent the division from taking any other action authorized by law for the operator’s failure to comply with its annual gas capture requirement, including shutting in wells and assessing civil penalties.

B. Accounting. No later than February 15 28 each year beginning in 2023, the operator shall submit a report certifying compliance with its reporting area annual gas capture percentage calculated by deducting from the total volume of natural gas produced, the volume of lost gas reported in 19.15.27.8.G.(3)(a) minus any division approved ALARM credits, and divide by the total volume of natural gas produced as illustrated by the following formula:

$$\text{Annual Gas Capture \%} = (\text{Produced gas} - (\text{Lost gas} - \text{ALARM credits})) / \text{Produced gas.}$$

~~statewide gas capture requirements. The operator’s volume of vented and flared natural gas shall be counted as produced natural gas and excluded from the volume of natural gas sold or used for beneficial use in the calculation of its statewide natural gas capture requirements, except that the operator may exclude from the volume of produced natural gas:~~

- ~~(1) the volume of natural gas vented or flared pursuant to Subparagraph (a) of Paragraph (2) of Subsection G of 19.15.27.8 NMAC for which the operator timely filed, and the division approved, a form C-129; and~~
- ~~(2) the volume of natural gas reported as a beneficial use and reported on the operator’s form C-115; and~~
- ~~(3) the volume of natural gas vented or flared pursuant to Subparagraphs (h)(i), (i), or (l) of Paragraph (2) of Subsection G of 19.15.27.8 NMAC.~~

The change from February 15th to 28th is not opposed by the Division and supported by the testimony presented. See Day 10 Tr. 184-185 (Powell and Bolander); Day 8 Tr. 44 (Perez)

The Division correctly notes NMOGA’s remaining changes reflect the deletion of the five categories in 27.8.G(2) and offer this point as the only basis for rejecting this clarifying language and formulas. See OCD Ex. 4C at line 94. The testimony demonstrates NMOGA’s changes eliminate the confusion expressed by operators with the Division’s proposed language and properly focuses the calculation of lost gas on the venting and flaring events constituting surface waste that can be accurately measured or estimated. See Day 8 Tr. 43-44 (Perez); NMOGA Ex. L7.

The Division’s language in B(3) further improperly treats gas flared for oxygen content as “lost gas” counted against operators when arriving at the gas capture percentage. See the justification and record citations under 27.8.G(2)(h). While the Division stated an intent to remove volumes flared due to oxygen content from the “lost gas” counted against operators, that has not been accomplished by the proposed language in B(3). See Day 10 Tr. 56-57 (Bolander).

(4) An operator that used a division-approved ALARM technology to monitor for leaks and releases may obtain a credit against the volume of lost natural gas if it discovered the leak or release using the ALARM technology and the operator:

- (a) isolated the leak or release within 48 hours following field verification;

- (b) repaired the leak or release within 15 days following field verification or another date approved by the division;
- (c) timely notified the division by filing a form C-129 or form C-141; and
- (d) used ALARM monitoring technology as a routine and on-going aspect of its waste-reduction practices.
- (i) For discrete waste-reduction practices such as aerial methane monitoring, the operator must use the technology at least ~~twice~~ **once** per year; and

This change matches the “annual” aerial instrument monitoring required by 28.8.C(5). The division offered no evidence as to why this provision should double the frequency.

(ii) for waste-reduction practices such as automated emissions monitoring systems that operate routinely or continuously, the division will determine the required frequency of use.

(5) An operator may file an application with the division for a credit against its volume of lost natural gas that identifies:

- (a) the ALARM technology used to discover the leak or release;
- (b) the dates on which the leak or release was discovered, field-verified, isolated and repaired;
- (c) the method used to measure or estimate the volume of natural gas leaked or released which method shall be consistent with Subsection F of 19.15.27.8 NMAC;
- (d) a description and the date of each action taken to isolate and repair the leak or release;
- (e) visual documentation or other verification of discovery, isolation and repair of the leak or release;
- (f) a certification that the operator did not know or have reason to know of the leak or release before discovery using ALARM technology; and
- (g) a description of how the operator used ALARM technology as a routine and on-going aspect of its waste-reduction practices.

(6) For each leak or release reported by an operator that meets the requirements of Paragraphs (3) and (4) of Subsection B of 29.15.28.10 NMAC, the division, in its sole discretion, may approve a credit that the operator can apply against its reported volume of lost natural gas as follows:

- (a) a credit of forty percent of the volume of natural gas discovered and isolated within 48 hours of discovery and timely repaired;
- (b) an additional credit of twenty percent if the operator used ALARM technology no less than once per calendar quarter as a routine and on-going aspect of its waste-reduction practices.

(7) A division-approved ALARM credit shall:

- (a) be used only by the operator who submitted the application pursuant to Paragraph (4) of Subsection B of 29.15.27.10 NMAC;
- (b) not be transferred to or used by another operator, including a parent, subsidiary, related entity, or person acquiring the well;
- (c) be used only once; and
- (d) expire 24 months after division approval.

C. Third-party verification. The division may request that an operator retain a third party to verify any data or information collected or reported pursuant to this Part, make recommendations to correct or improve the collection and reporting of data and information, submit a report of the verification and recommendations to the division by the specified date, and implement the recommendations in the manner approved by the division. If the division and the operator cannot reach agreement on the division’s request, the operator may file an application for hearing before the division. The operator, at its own expense, shall retain a third party approved by the division to conduct the activities agreed to by the division and the operator or ordered by the division following a hearing.

D. Natural gas management plan.

(1) After May 31, 2021, the operator shall file a natural gas management plan with each APD for a new or recompleted well. The operator may file a single natural gas management plan for multiple wells drilled or recompleted from a single well pad or that will be connected to a central delivery point. The natural gas management plan shall describe the actions that the operator will take at each proposed well to meet its statewide

natural gas capture requirements and to comply with the requirements of Subsections A through F of 19.15.27.8 NMAC, including for each well:

- (a) the operator's name and OGRID number;
- (b) the name, API number, location and footage;
- (c) the anticipated dates of drilling, completion and first production;
- (d) a description of operational best practices that will be used to minimize venting during active and planned maintenance; and
- (e) the anticipated volumes of liquids and gas production and a description of how separation equipment will be sized to optimize gas capture.

(2) Beginning January 1, 2022, an operator that, at the time it submits an APD for a new or recompleted well is, cumulatively for the year, not in compliance with its baseline natural gas capture rate for the applicable reporting area if the APD is submitted in 2022 or its natural gas capture requirement for the previous year if the APD is submitted in 2023 or after shall also include the following information in the natural gas management plan:

- (a) the anticipated volume of produced natural gas in units of MCFD for the first year of production;
- (b) the existing natural gas gathering system the operator has contracted or anticipates contracting with to gather the natural gas, including:
 - (i) the name of the natural gas gathering system operator;
 - (ii) the name and location of the natural gas gathering system;
 - (iii) a map of the well location and the anticipated pipeline route connecting the production operations to the existing or planned interconnect of the natural gas gathering system.; and
 - (iv) the maximum daily capacity of the segment or portion of the natural gas gathering system to which the well will be connected; and

(c) the operator's plans for connecting the well to the natural gas gathering system, including:

- (i) the anticipated date on which the natural gas gathering system will be available to gather the natural gas produced from the well;
- (ii) whether the natural gas gathering system has or will have capacity to gather the anticipated natural gas production volume from the well prior to the date of first production; and
- (iii) whether the operator anticipates the operator's existing well(s) connected to the same segment or portion of the natural gas gathering system, referenced in Subparagraph (iv) of Paragraph (2) of Subsection D or 19.15.27.9 NMAC will continue to be able to meet anticipated increases in line pressure caused by the well and the operator's plan to manage production in response to the increased line pressure.

(3) The operator may assert confidentiality for information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC pursuant to Section 71-2-8 NMSA 1978.

(4) The operator shall certify that it has determined based on the available information at the time of submitting the natural gas management plan either:

- (a) it will be able to connect the well to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the volume of natural gas the operator anticipates the well will produce commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or
- (b) it will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the volume of natural gas the operator anticipates the well will produce commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

(5) If the operator determines it will not be able to connect a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced on the date of first production from the well, the operator shall either shut-in the well until the operator submits the certification required by Paragraph (4) of Subsection D of 19.15.27.7 NMAC or submit a venting and flaring plan to the division that evaluates the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;

- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

(6) If, at any time after the operator submits the natural gas management plan and before the well is spud:

(a) the operator becomes aware that the natural gas gathering system it planned to connect the well to has become unavailable or will not have capacity to transport one hundred percent of the production from the well, no later than 20 days after becoming aware of such information, the operator shall submit for the division's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; and

(b) the operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, the operator shall submit for the division's approval a new or revised natural gas management plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each plan until the operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

(7) If the operator does not make a certification or fails to submit an adequate venting and flaring plan, or if the division determines that the operator will not have adequate natural gas takeaway capacity at the time a well will be spud, the division may:

- (a) deny the APD; or
- (b) conditionally approve the APD.

[19.15.27.9 NMAC – N, xx/xx/xxxx]

16078216_v1

Please see NMOGA's citations supporting these changes in Part 27.7.

- E. "Flare" or "Flaring" means the controlled combustion of natural gas in a device designed for that purpose.
- F. "Flare stack" means a device equipped with a burner used to flare natural gas.
- G. "Gathering pipeline" means a pipeline that gathers natural gas within a natural gas gathering system.
- H. "GIS" means geographic information system.
- I. "GPS" means global positioning system.
- J. "Malfunction" means a sudden, unavoidable failure or breakdown of equipment beyond the reasonable control of the operator that substantially disrupts operations, 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.
- K. "Natural gas" means a gaseous mixture of hydrocarbon compounds, primarily composed of methane, and includes both casinghead gas and gas as those terms are defined in 19.15.2 NMAC.
- L. "Natural gas gathering system" means the gathering pipelines and associated facilities that compress, dehydrate or treat natural gas after the custody transfer point and ending at the connection point with a natural gas processing plant or transmission or distribution system.
- M. "New gathering pipeline" means a gathering pipeline placed into service after {effective date of rule}.
- N. "Vent" or "Venting" means the release of uncombusted natural gas to the atmosphere but does not include:
 - (1) the emission of gas from devices or equipment, such as pneumatic devices and pneumatic pumps, that are designed to emit as part of normal operations if such emissions are not prohibited by New Mexico Environment Department, Environmental Protection Agency or tribal authority;
 - (2) unintentional leaks that are not the result of inadequate equipment design; and
 - (3) natural gas released from, or downstream of, a tank unless there is no separation occurring at equipment upstream of the tank; the separation equipment is not sufficiently sized to capture the entrained gas; or the natural gas is sent to the Tank during circumstances when the gas cannot be sent to the gathering line or the combustion equipment used to Flare the gas is not operating.

See NMOGA Ex. C9; Day 4 Tr. 254-259 (Smitherman). See also justification statements under NMOGA Exhibit A and NMOGA's Closing Argument.

[19.15.28.7 NMAC – N, xx/xx/xxxx]

19.15.28.8 VENTING AND FLARING OF NATURAL GAS:

- A. Venting or flaring of natural gas from a natural gas gathering system that constitutes waste as defined in 19.15.2 NMAC and is prohibited. The operator has a general duty to maximize the gathering of natural gas and minimize the waste of natural gas through venting and flaring. The operator may vent or flare natural gas only as authorized in Subsection B of 19.15.28.8 NMAC. In all circumstances, the operator shall flare rather than vent natural gas except when flaring is not technically feasible or would pose a risk to safe operations or personnel safety and venting is a safer alternative than flaring.
- B. The operator shall not flare or vent natural gas except:
 - (1) during an emergency or malfunction; or
 - (2) during the following activities unless prohibited by applicable state and federal law, rule, or regulation for the emission of hydrocarbons and volatile organic compounds:
 - (a) repair and maintenance, including blowing down and depressurizing equipment to perform repair or maintenance;
 - (b) normal operation of a gas-activated pneumatic controller or pump;
 - (c) normal operation of dehydration units and amine treatment units;
 - (d) normal operation of compressors, compressor engines, and turbines;
 - (e) normal operation of a storage tank or other low-pressure production vessel, but not including venting from a thief hatch, located on a tank routed to a flare or control device, that is not properly closed or maintained on an established schedule;

- (f) gauging or sampling a storage tank or other low-pressure vessel;
- (g) loading out liquids from a storage tank or other low-pressure vessel to a transport vehicle;
- (-) normal, unintentional leaks that are not the result of inadequate equipment design or maintenance;

Please see the citations supporting this language under 27.8.D.4.

- (h) blowdown to repair a gathering pipeline;
- (i) pigging a gathering pipeline;
- (j) purging a gathering pipeline; or
- (k) commissioning of pipelines, equipment, or facilities only for as long as necessary to purge introduced impurities from the pipeline or equipment.

C. Performance standards.

(1) The operator shall monitor the annual gas capture percentage in accordance with 19.15.28.10 and if not in compliance with 19.15.28.10(A) ~~take all reasonable actions to prevent and minimize leaks and releases of natural gas from a natural gas gathering system and shall submit to the division and implement an operations plan addressing mitigative actions to be taken to improve the gas capture percentage. to minimize the waste of natural gas for each non-contiguous natural gas gathering system. The plan should include procedures to reduce leaks and releases, such as a routine maintenance program, cathodic protection, corrosion control, liquids management and integrity management. The operator shall file its operations plan with the division:~~

(a) An operator whose gas capture percentage is not in compliance with 19.15.28.10(A) shall establish and submit to the division a mitigation plan within 90 days of the reporting in 19.15.28.10(B).

(b) For operators under a mitigative action plan, any changes to the plan or proof of gas capture percentage in compliance with 19.15.28.10(A) and subsequent termination of the mitigative action plan shall be submitted to the division no later than March 31 of the following year.

~~(a) for a natural gas gathering system placed into service after [effective date of rule], within 60 days following the date the natural gas gathering system is placed into service;~~

~~(b) for a natural gas gathering system in place on or before {effective date of rules}, within 90 days following {the effective date of these rules}; and~~

~~(c) for a natural gas gathering system to which the operator added a new gathering pipeline during the calendar year or changed the operations plan, an updated operations plan no later than March 31 of the following year.~~

In addition to the justifications set forth in NMOGA Exhibit B and NMOGA’s Closing Statement, the testimony from the hearing supports the approach offered by these changes and avoids potential conflicts with other state and federal agencies governing cathodic protection, corrosion control, integrity management and related issues. *See* Day 6 Tr. 212-217, 258-262 308-310 (Reinermann); NMOGA Exs. F19-F20.

(2) During scheduled maintenance, replacement, or repair of a new or existing natural gas gathering system, the operator shall not vent natural gas during blowdown and shall route natural gas to a portable flare stack which complies with the flare stack standards, inspection, and recordkeeping requirements in Subsection E of 19.15.27.8 NMAC.

(3) During unscheduled maintenance, replacement or repair of a new or existing natural gas gathering system, to the extent that it is technically feasible and would not pose a risk to safe operations or personnel safety, the operator shall not vent route natural gas during blowdown and shall route natural gas to a portable flare stack which complies with the flare stack standards, inspection and recordkeeping in Subsection E of 19.15.27.8 NMAC.

(4) For equipment that is not subject to AVO inspections by the New Mexico Environment Department or other state, federal or tribal agency, ~~the~~ operator shall conduct a ~~monthly~~ ~~weekly~~ AVO inspection of the compressors, dehydrators and treatment facilities associated with a natural gas gathering system to confirm those

components are operating properly and there are no leaks or releases except as allowed in Subsection B of 19.15.28.8 NMAC.

Experience has shown monthly AVO inspections and the associated recordkeeping requirements achieve the goal of identifying components that are not operating properly and conform with the requirements of other state and federal agencies. *See* Day 6 Tr. at 218-220, 226-228 (Reinermann); NMOGA Exs. F21-F22; Day 5 Tr. 98 (Smitherman). *See also* the justification statement under NMOGA Exhibit B. The Division offered no evidence disputing this point or to suggest formal weekly AVO inspections are necessary to accomplish this goal.

(a) During an AVO inspection the operator shall inspect all components, including flare stacks, thief hatches, closed vent systems, pumps, compressors, pressure relief devices, valves, lines, flanges, connectors, and associated piping to identify defects, leaks, and releases by:

(i) visually inspecting externally for cracks and hole; loose connections; leaks; broken and missing caps; broken, damaged seals and gaskets; broken, missing and open hatches; and broken, missing and open access covers and closure devices; and to ensure a flare stack is operating in conformance with its design;

(ii) listening for pressure and liquid leaks; and

(iii) smelling for unusual and strong odors.

(b) The operator shall make and keep a record of an AVO inspection for no less than five years and make such records available for inspection by the division upon request.

(c) Subject to the division's prior written approval, the operator may use a remote or automated monitoring technology to detect leaks and releases in lieu of an AVO inspection.

(5) The operator shall perform an annual ~~instrument~~ monitoring of the entire length of a gathering pipeline using an AVO technique, ALARM technology, aerial visual inspections, or other valid method to detect leaks and releases. The operator shall record and, upon the division's request, report the date and time of the monitoring, the method and technology used. The operator shall retain records of monitoring for at least five years. Personnel conducting inspections shall be knowledgeable on the methods and technology being used.

See Day 6 Tr. 229 (Reinermann). The Division did not dispute the need for this change.

D. Reporting to affected upstream operators.

(1) No less than 14 days prior to the date of scheduled maintenance, replacement or repair of a natural gas gathering system, the operator shall provide written notification to each upstream operator whose natural gas is gathered by the system of the date and expected duration that the system will not gather natural gas.

(2) As soon as possible but no more than 12 hours after discovery of an emergency or malfunction, or the need for unscheduled maintenance of a natural gas gathering system, the operator shall provide verbal notification to each upstream operator whose natural gas is gathered by the system of the date and expected duration that the system will not gather natural gas, and shall provide written confirmation of the verbal notification, including the date, time, person, and telephone number to whom verbal notification was given no later than 24 hours after discovery.

(3) The operator shall make and keep a record of each notification for no less than five years and make such records available for inspection by the division upon request.

E. Measurement of vented and flared natural gas.

(1) The operator shall measure or estimate the volume of natural gas that it vents, flares or beneficially uses regardless of the reason or authorization for such venting or flaring.

(2) The operator shall install equipment to measure the volume of natural gas vented or flared from a natural gas gathering system.

(3) Measuring equipment shall conform to an industry standard such as American Petroleum Institute (API) Manual of Petroleum Measurement Standards (MPMS) Chapter 14.10 Measurement of Flow to Flares.

(4) Measuring equipment shall not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measuring equipment.

(5) If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, the operator shall estimate the volume of vented or flared natural gas using a methodology that can be independently verified.

F. Reporting of vented or flared natural gas.

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

(a) The operator shall notify the division of venting or flaring that exceeds 50 MCF in volume and either results from an emergency or malfunction or lasts eight hours or more cumulatively within any 24-hour period from a single event by filing a form C-129 in lieu of a C-141, except as provided by Subparagraph (d) of Paragraph (1) of Subsection G of 19.15.27.8 NMAC, with the division as follows:

(i) for venting or flaring that equals or exceeds 50 MCF but is less than 500 MCF from a single event, notify the appropriate division district office in writing by filing a form C-129 no later than 15 days following discovery or commencement of venting or flaring; or

(ii) for venting or flaring that equals or exceeds 500 MCF or otherwise qualifies as a major release as defined in 19.15.29.7 NMAC from a single event, notify the appropriate division district office verbally or by e-mail as soon as possible and no later than 24 hours following discovery or commencement of venting or flaring and provide the information required in form C-129. No later than 15 days following the discovery or commencement of venting or flaring, the operator shall file a form C-129 that verifies, updates, or corrects the verbal or e-mail notification; and

(iii) no later than 15 days following the termination of venting or flaring, notify the division by filing a form C-129.

(b) The operator shall provide and certify the accuracy of the following information in the form C-129:

- (i)** operator's name;
- (ii)** name and type of facility;
- (iii)** equipment involved;
- (iv)** compositional analysis of vented or flared natural gas that is representative of the natural gas gathering system;
- (v)** date(s) and time(s) that venting or flaring was discovered or commenced and terminated;
- (vi)** measured or estimated volume of vented or flared natural gas;
- (vii)** cause and nature of venting or flaring;
- (viii)** steps taken to limit the duration and magnitude of venting or flaring;

and

(ix) corrective actions taken to eliminate the cause and recurrence of venting or flaring.

(c) At the division's request, the operator shall provide and certify additional information by the specified date.

(d) The operator shall file a form C-141 instead of a form C-129 for a release which includes liquid during venting or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.

(2) Monthly reporting of vented and flared natural gas. For each natural gas gathering system at which venting or flaring occurred, the operator shall separately report the volume of vented natural gas and the volume of flared natural gas for each month in each category listed below. Beginning July 1, 2021, the operator shall gather data for quarterly reports in a format specified by the division and submit by November 15, 2021 for the third quarter and February 15, 2022 for the fourth quarter. **Unless otherwise approved by the division, beginning January 2022, the operator shall submit a form C-115B monthly on or before the 15th day of the second month following the month in which it vented or flared natural gas.** The operator shall specify whether it estimated or measured each reported volume. In filing the initial report, the operator shall provide the methodology (measured or estimated using calculations and industry standard factors) used to report the volumes on the form, and shall report changes in the methodology on future forms. The operator shall make and keep records of the measurements and estimates, including records showing how it calculated the estimates, for no less than five years and make such records available for inspection by the division upon request. The categories are:

[Please see NMOGA's citations supporting this similar change in Part 27.8.G\(2\).](#)

- (a)** emergency;
- (b)** non-scheduled maintenance and malfunction;
- (c)** routine repair and maintenance, including blowdown and depressurization;
- (d)** beneficial use, including pilot and purge gas, fired equipment and engines;
- (e)** gathering pipeline blowdown and purging;

- (f) gathering pipeline pigging;
- ~~(g) uncontrolled storage tanks;~~
- ~~(h) venting as a result of normal operation of pneumatic controllers and pumps;~~
- ~~(i) improperly closed or maintained thief hatches on tanks routed to a flare or control device; and~~

Please see NMOGA’s citations supporting these similar changes in Part 27.8.G(2).

(j) other **surface** waste as defined in 19.15.2.W(1)(b) NMAC that is not described above.

This change is necessary to clarify the “waste” referenced by the Division in this subpart.

(3) Upon submittal of the C-115B report, the division will compile and publish an operator’s vented and flared natural gas information for each month on a volumetric and gas capture percentage basis.

(a) To calculate the lost natural gas on a volumetric basis, the operator shall **add** ~~deduct~~ the volume of natural gas ~~used for beneficial use, and~~ vented or flared during **non-scheduled maintenance and malfunction, routine repair and maintenance (including blowdown and depressurization), gathering pipeline blowdown and purging, gathering pipeline pigging, and other surface waste as defined in 19.15.2.W(1)(b) NMAC as illustrated by the following formula:** ~~an emergency from the volume of natural gas reported on its form C-115B for the calendar year.~~

$$\text{Lost Gas} = \text{Non-scheduled maintenance and malfunction} + \text{routine repair and maintenance} + \text{gathering pipeline blowdown and purging} + \text{gathering pipeline pigging} + \text{other surface waste as defined in 19.15.2.W(1)(b) NMAC.}$$

(b) To calculate the **monthly lost natural gas capture** on a percentage basis, the operator shall deduct the volume of **lost gas reported in (3)(a) above** ~~natural gas reported on its form C-115B for the calendar year, but not including the volume of natural gas used for beneficial use and vented or flared during an emergency~~ from the total volume of natural gas gathered, and divide by the total volume of natural gas gathered **as illustrated by the following formula:**

$$\text{Monthly Gas Capture \%} = (\text{Total gas gathered} - \text{Lost gas}) / \text{Total gas gathered}$$

Please see NMOGA’s citations supporting similar changes under 27.8.G(3)

(4) Upon the New Mexico environment department’s request, the operator shall promptly provide a copy of any form filed pursuant to 19.15.28 NMAC.
[19.15.28.8 NMAC – N, xx/xx/xxxx]

19.15.28.9 LOCATION REQUIREMENTS:

- A. The operator shall file with the division a GIS digitally formatted as-built map:
 - (1) for a new gathering pipeline or natural gas gathering system, no later than 90 days after placing the gathering pipeline or system into service;
 - (2) for an existing gathering pipeline or natural gas gathering system, no later than **90 days after the effective date of this rule May 31, 2021**; and

This change is necessary given the uncertainty as to what will be required and when this rule will become effective. The 90-day provision matches the language in 28.9.A(1) and A(3).

(3) for an addition to an existing gathering pipeline or natural gas gathering system, no later than 90 days after placing the addition into service.

B. To ensure proper field identification of a gathering pipeline in an emergency, the as-built map shall include a layer which identifies the pipeline size and construction material type.

~~C. No later than May 31 of each year, the operator shall file with the division an updated GIS digitally formatted as-built map of its gathering pipeline or natural gas gathering system, which shall include a GIS layer that identifies the date, location and volume of vented or flared natural gas of each emergency, malfunction and release reported to the division since 19.15.28 NMAC became applicable to the pipeline or system.~~

It is undisputed that the Division can easily track or plot these events using the information provided by the Form C-129 filing under this proposed rule and the Form C-141 filings under Rule 19.15.27. *See* Tr. 232-241 (Reinermann); NMOGA Exs. F25-F26. The Division’s concern about de minimis releases, which the Division has long recognized as less than 50 mcf under 19.15.29.7.B, does not warrant this additional administrative burden. *See* OCD Ex. 4D at line 43.

D. The operator may assert confidentiality for the GIS digitally formatted as-built map and GIS layer pursuant to Section 71-2-8 NMSA 1978.
[19.15.28.9 NMAC – N, xx/xx/xxxx]

19.15.28.10 STATEWIDE NATURAL GAS CAPTURE REQUIREMENTS:

A. Statewide natural gas capture requirements. Commencing January 1, 2022, the operator of a natural gas gathering system shall reduce the annual volume of vented and flared natural gas in order to capture no less than ninety-eight percent of the natural gas gathered in each of two reporting areas, one north and one south of the Township 10 North line, by December 31, 2026. The division shall calculate and publish each operator’s baseline gas capture rate based on the operator’s 2021 quarterly reports as per Paragraph (2) of Subsection ~~G~~ **F** of 19.15.28.8 NMAC. In each calendar year between January 1, 2022 and December 31, 2026, the operator shall increase its annual percentage of natural gas captured in each reporting area in which it operates based on the following formula: (2021 baseline loss rate minus two percent) divided by five.

Change to correct scrivener error.

(1) The following table provides examples of the formula based on a range of baseline natural gas capture rates.

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%

(2) If the operator’s baseline capture rate is less than sixty percent, the operator shall submit by the specified date to the division for approval, a plan to meet the minimum required annual capture percentage increase.

(3) An operator ~~’s acquisition of that acquires~~ a natural gas gathering system from another operator shall ~~comply with its applicable reporting area’s not affect its annual~~ natural gas capture requirements for the acquired system no later than December 31, 2026, unless the division approves a later date. ~~No later 60 days following the acquisition, the operator may file a written request to the division requesting to modify its gas capture percentage requirements for good cause based on its acquisition. The division may approve, approve with conditions, or deny the request in its sole discretion.~~ The operator may either report and manage compliance with the natural gas capture requirement separately for the acquired system, or the operator may include the acquired system in its applicable regional area reporting and compliance obligations.

(4) Operators that are affiliated ~~shall may, but are not required to,~~ consolidate their natural gas capture reporting and compliance obligations.

See Day 6 Tr. 318-344 (Craft); NMOGA Exhibit J2-J17. *See also* the justifications provided in NMOGA Exhibit B.

B. Accounting. No later than February ~~15~~ **28** each year beginning in 2023, the operator shall submit a report certifying compliance with its ~~statewide gas capture requirements. The operator’s volume of vented and~~

~~flared natural gas shall be counted as lost natural gas and excluded from the volume of natural gas gathered or used for beneficial use in the calculation of its statewide natural gas capture requirements, except that the operator may exclude from the volume of gathered natural gas: reporting area annual gas capture percentage calculated by deducting from the total volume of natural gas gathered, the volume of lost gas reported in 19.15.28.8.F.(3)(a) minus any ALARM credits, and divide by the total volume of natural gas gathered as illustrated by the following formula:~~

$$\text{Annual Gas Capture \%} = (\text{Total gas gathered} - (\text{Lost gas} - \text{ALARM credits})) / \text{Total gas gathered}$$

~~(1) the volume of vented and flared natural gas pursuant to Subparagraph (a) of Paragraph (2) of Subsection F of 19.15.28.8 NMAC for which the operator timely filed, and the division approved, a form C-129; and~~

~~(2) the volume of natural gas reported as a beneficial use pursuant to Subparagraphs (d) or (h) of Paragraph (2) of Subsection F of 19.15.28.8 NMAC, provided that the operator identifies the volume of vented natural gas, the reason that the operator vented the natural gas rather than capturing it and any other relevant information requested by the division; and~~

Please see NMOGA's citations supporting similar changes to Part 27.9.B.

(3) an operator that used a division-approved ALARM technology to monitor for leaks and releases may obtain a credit against the volume of lost natural gas if it discovered the leak or release using the ALARM technology, and the operator:

- (a) isolated the leak or release within 48 hours following field verification;
- (b) repaired the leak or release within 15 days following field verification or another date approved by the division;
- (c) timely notified the division by filing a form C-129 or form C-141; ; and
- (d) used ALARM monitoring technology as a routine and on-going aspect of its waste-reduction practices.

(i) For discrete waste-reduction practices such as aerial methane monitoring, the operator must use the technology at least ~~twice~~ once per year; and

This change matches the "annual" aerial instrument monitoring required by 28.8.C(5). The division offered no evidence as to why this provision should double the frequency.

(ii) for waste-reduction practices such as automated emissions monitoring systems that operate routinely or continuously, the division will determine the required frequency of use.

(4) An operator may file an application with the division for a credit against its volume of lost natural gas that identifies:

- (a) the ALARM technology used to discover the leak or release;
- (b) the dates on which the leak or release was discovered, field-verified, isolated, and repaired;
- (c) the method used to measure or estimate the volume of natural gas leaked or released;
- (d) a description and the date of each action taken to isolate and repair the leak or release;
- (e) visual documentation or other verification of discovery, isolation, and repair of the leak or release;
- (f) a certification that the operator did not know or have reason to know of the leak or release before discovery using ALARM technology; and
- (g) a description of how the operator used ALARM technology as a routine and on-going aspect of its waste-reduction practices.

(5) For each leak or release reported by an operator that meets the requirements of Paragraphs (3) and (4) of Subsection B of 29.15.28.10 NMAC, the division, in its sole discretion, may approve a credit that the operator can apply against its reported volume of lost natural gas as follows:

- (a) a credit of forty percent of the volume of natural gas discovered and isolated within 48 hours of discovery and timely repaired; and

(b) an additional credit of twenty percent if the operator used ALARM technology no less than once per calendar quarter as a routine and on-going aspect of its waste-reduction practices.

(6) A division-approved ALARM credit shall:

(a) be used only by the operator who submitted the application pursuant to Paragraph (4) of Subsection B of 29.15.28.10 NMAC;

(b) not be transferred to or used by another operator, including a parent, subsidiary, related entity or person acquiring the natural gas gathering system;

(c) be used only once; and

(d) expire 24 months after division approval.

C. Third-party verification. The division may request that an operator verify any data or information collected or reported pursuant to this Part, make recommendations to correct or improve the collection and reporting of data and information, submit a report of the verification and recommendations to the division by the specified date, and implement the recommendations in the manner approved by the division. If the division and the operator cannot reach agreement on the division's request, the operator may file an application for hearing before the division. The operator, at its own expense, shall retain a third party approved by the division to conduct the activities agreed to by the division and the operator or ordered by the division following a hearing.

[19.15.28.10 NMAC – N, xx/xx/xxxx]

16090033_v1