



(6) three or more emergencies 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.

**H. "Flare" or "Flaring"** means the controlled combustion of natural gas in a device designed for that purpose.

**I. "Flare stack"** means an appropriately designed stack equipped with a burner used for the combustion and disposal of natural gas.

**J. "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.

**K. "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.

**L. "Malfunction"** means 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.

**M. "N<sub>2</sub>"** means nitrogen gas.

**N. "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.

**O. "Production operations"** means the period that begins on the earlier of 31 days following the commencement of initial flowback or when permanent production equipment is placed into service and concludes when the well is plugged and abandoned.

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

**Q. "Separation flowback"** means the period during completion operations that begins when it is technically feasible for a separator to function and concludes on the earlier of 30 days after the commencement of initial flowback or when permanent production equipment is placed into service.

**R. "Vent" or "Venting"** means the release of uncombusted natural gas to the atmosphere.  
[19.15.27.7 NMAC – N, xx/xx/xxxx]

#### **19.15.27.8 VENTING AND FLARING OF NATURAL GAS:**

**A.** Venting and flaring of natural gas during drilling, completion or production operations constitutes waste and is prohibited except as authorized in Subsections B, C and D of 19.15.27.8 NMAC. The operator has a general duty to maximize the recovery of natural gas and to minimize the release of natural gas to the atmosphere. During drilling, completion and production 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.

##### **B. Venting and flaring during drilling operations.**

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

(2) A flare stack shall be located at a minimum of 100 feet from the nearest surface hole location and shall be enclosed and equipped with an automatic ignition system or continuous pilot.

(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 and recompletion operations.**

(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:  
(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, provided that the flare is equipped with an automatic igniter or continuous pilot.

(3) If N<sub>2</sub> or H<sub>2</sub>S concentrations in natural gas exceeds the gathering pipeline specifications, the operator may flare the natural gas for 60 days or until the N<sub>2</sub> or H<sub>2</sub>S concentrations meet the pipeline 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 per week;
- (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) to the extent authorized by a valid federally enforceable air quality permit issued by the New Mexico environment department;

(2) during an emergency or malfunction, but only to avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment. The operator shall notify the division of venting or flaring resulting from an emergency or malfunction pursuant to Paragraph (1) of Subsection G of 19.15.27.8 NMAC;

(3) 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 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;

(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;

(4) during the first 12 months of production from a delineation well, or as extended by the division for good cause shown, provided:

- (a) the operator proposes and the division approves the well as a delineation well;

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

(c) if a delineation well is capable of producing in paying quantities within 12 months of the division's approval, 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

(5) 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) scheduled 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 that is not fully and timely closed or from a seal that is not maintained on an established schedule;

- (f) a bradenhead test;

- (g) a packer leakage test;

(h) a production test lasting less than 24 hours unless the division requires or approves a longer test period; or

(i) when N<sub>2</sub> or H<sub>2</sub>S concentrations in natural gas exceeds the gathering pipeline specifications, provided the operator analyzes natural gas samples twice 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.

**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 throughput and pressure to maximize hydrocarbon recovery and minimize excess natural gas flashing and vapor accumulation.

(2) The operator shall equip a permanent storage tank associated with production operations that is installed after {effective date of rule} 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 for and operated at maximum efficiency.

(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 or continuous pilot or technology that alerts the operator that the flare has malfunctioned no later than 18 months after {effective date of rule}.

(c) A flare stack located at a well with an average daily production of equal to or less than 10 barrels of oil or 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 located at a well spud after {effective date of rule} shall be securely anchored and located at least 100 feet from the well and storage tanks.

(5) 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.

(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 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:

(i) during the first year of production; and

(ii) on a well with an average daily production greater than 10 barrels of oil or 60,000 cubic feet of natural gas.

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

(i) on a well with an average daily production equal to or less than 10 barrels of oil or 60,000 cubic feet of natural gas; and

(ii) on shut-in, temporarily abandoned, or inactive wells.

(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.

(7) 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 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 on flowlines that are piped from equipment such as high pressure separators, heater treaters and vapor recovery units to measure the volume of natural gas vented or flared from a well authorized by an APD issued after May 31, 2021 that has an average daily production greater than 10 barrels of oil or 60,000 cubic feet of natural gas.

(3) Measuring equipment shall be an orifice meter or other measurement device or technology such as a thermal mass or ultrasonic flow meter approved by the division that, at the time of installation, complies with the accuracy ratings and design standards for the measurement of natural gas, such as the American petroleum institute, international organization for standards, or American gas association.

(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) For an event for which metering is not practicable, such as low pressure venting and flaring, the operator may estimate the volume of vented or flared natural gas.

(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.

(7) The operator shall install additional measuring equipment whenever the division determines that 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 gas.**

**(1) Venting or flaring caused by emergency or 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 by filing a form C-129 with the division as follows:

(i) for venting or flaring that equals or exceeds 50 MCF but less than 500 MCF, 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, 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 appropriate division district office 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) analysis of vented or flared natural gas;

(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 the release of a 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.** The operator shall report the volume of vented and flared natural gas for each month in each category listed below. Beginning June 2021, the operator shall submit quarterly reports in a format specified 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:

(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;
- (g) insufficient availability or capacity in a natural gas gathering system during separation phase of completion operations or production operations;
- (h) natural gas that is not suitable for transportation or processing because of N<sub>2</sub> or H<sub>2</sub>S concentration;
- (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 that are routed to a flare or control device;
- (k) venting or flaring in excess of four hours that is caused by an emergency, unscheduled maintenance or malfunction of a natural gas gathering system as defined in 19.15.28 NMAC; and
- (l) other not described above.

(3) The operator shall report the lost natural gas for each month on a volumetric and percentage basis on form C-115B.

(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, and vented or flared because it was not suitable for transportation or processing, 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 and vented or flared because it was not suitable for transportation or processing, and divide by the total volume of natural gas produced.

(4) The operator shall report the vented and flared natural gas on a volumetric and percentage basis to all royalty owners in the mineral estate being produced by the well 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.

(5) Upon request by the division, the operator, at its own expense, shall retain a third-party approved by the division to verify any data or information collected or reported pursuant to Subsections F and G of 19.15.27.8 NMAC and 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.

(6) 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 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 monthly data reported on form C-115B for each reporting area in which the operator operates a well. In each calendar year between January 1, 2022 and December 31, 2026, the operator shall increase the 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 that acquires one or more wells from another operator shall comply with its statewide natural gas capture requirements for the acquired well(s) no later than December 1, 2026, unless the division approves a later date.

**B. Accounting.** No later than February 15 each year beginning in 2022, 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 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:

(1) the operator may exclude from the volume of produced natural gas the volume of natural gas vented or flared pursuant to Subparagraphs (a) and (h) 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 operator may exclude from the volume of produced natural gas the volume of natural gas reported as a beneficial use or vented or flared from a delineation well and reported on the operator's form C-115.

(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;  
(d) timely reported the volume of natural gas leaked or released on form C-115 as an ALARM event pursuant to Subparagraph (n) of Paragraph (2) of Subsection F of 19.15.28.8 NMAC; 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 per year; and

(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;

(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 29.15.27.10 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.** Upon request by the division, the operator, at its own expense, shall retain a third-party approved by the division to verify any data or information collected or reported pursuant to Subsections F and G of 19.15.27.8 NMAC and 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.

**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; and
- (c) the anticipated dates of drilling, completion and first production.

(2) An operator that, at the time it submits an APD for a new or recompletion well, is not in compliance with its statewide natural gas capture requirements 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 natural gas gathering system as built or as planned if it has not yet been built; and
  - (iv) the maximum daily capacity 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, at the time of application, the natural gas gathering system has existing capacity to gather the anticipated natural gas production volume from the well; and
  - (iii) whether the operator anticipates the operator's existing well(s) connected to the same natural gas gathering system will continue to be able to meet anticipated increases in line pressure caused by the well and the operator's plan to manage increased line pressure.

(3) The operator may submit a request asserting confidentiality for information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, which the division will review in accordance with 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 submit a venting and flaring plan to the division that evaluates the potential alternative 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 storage;
- (h) reinjection for enhanced oil recovery;
- (i) fuel cell production; and
- (j) other alternative 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 (4) of Subsection D of 19.15.27.9 NMAC; and

(b) the operator becomes aware that it has become out of compliance with the statewide natural gas capture requirements, 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 containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC.

(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]