



## **ECMC GAS CAPTURE PLAN - FORM 4 SUNDRY OPERATOR GUIDANCE**

### **FORM 4 SUNDRY**

### **Rule 903.e. - Gas Capture Plan - Form 4 Sundry**

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#### **Document Control**

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#### **Rule Citation**

##### **Rule 903.e. - Gas Capture Plans**

Full Rule text is included in Appendix A.

#### **Purpose of Rule**

After January 15, 2022, Flaring produced gas is prohibited, except in limited circumstances. All produced natural gas must be put to a beneficial use or the Operator must obtain an approved Variance from the Commission to Vent or Flare saleable production gas. Rule 304.c.(12). requires Operators to commit to a gas gathering system prior to commencement of production operations or submit a gas capture plan consistent with the requirements of Rule 903.e. While not identified specifically by Rule, Gas Capture Plans may also be submitted with a Form 4. Wells that vented/flared gas prior to January 15, 2022, and are now selling or beneficially using the previously vented/flared gas, are required to submit a Gas Capture Plan to the Location using a Form 4.

Routing produced gas from the well without adequate separation to oil production tanks to Vent or combust with flash gas is not allowed by Rule 903. Combustion of tank vapor, after adequate separation, is regulated by Colorado Department of Public Health and Environment - Air Pollution Control Division (CDPHE-APCD) for the tank's emission control device.

## **Guidance/Requirements**

### **Set of Requirements 1**

1. Form 4 Sundry.

All Gas Capture Plans are required by Rule 903.e. to include the following information:

- a. A description and map of the location of the closest or contracted natural gas gathering system or point of sale;
- b. The name of the company operating the closest or contracted natural gas gathering system;
- c. The Operator's plan for connecting their facility to a natural gas gathering system or otherwise putting gas to beneficial use, including:
  - i. Discussion of potential rights of way issues;
  - ii. Construction schedules;
  - iii. Date of availability of the gas Gathering Line;
  - iv. Whether the nearest or contracted gas gathering system has capacity to accept the anticipated gas to be produced at the location at the time of application; and
  - v. Options for beneficial use of natural gas that are alternatives to Flaring during production operations prior to connection to gas Gathering Lines, including, but not limited to: on-site use, natural

gas liquid processing, electrical power generation, gas to liquid, reinjection for enhanced oil recovery, or other options;

- d. For a Wildcat (Exploratory) Well or if the Operator anticipates conducting a Production Evaluation or Productivity Test, a description of the planned Production Evaluation or Productivity Test and any issues related to the Operator's ability to connect to a gas Gathering Line;
- e. Any anticipated safety risks that may require the Operator to allow gas to escape, rather than being captured or combusted during drilling operations (not applicable for Wells already in production);
- f. A description of operational best practices that will be used to minimize Venting during active and planned maintenance;
- g. Procedures the Operator will employ to reduce the frequency of Well liquids unloading events;
- h. Anticipated volumes of liquids and gas production and a description of how separation equipment will be sized to optimize gas capture; and
- i. Acknowledge if the mineral owner is to be compensated for the Vented or Flared natural gas.

## **Set of Requirements 2**

### **1. Beneficial Use Requirements**

If the Operator is proposing to utilize the gas on-site for beneficial use, the Gas Capture Plan must provide details that support that utilization. ECMC Staff will review the beneficial use Gas Capture Plan to aid the review process. Include the following details with the Gas Capture Plan:

- a. How is the gas being used;
  - i. If powering equipment:

1. Clarify what equipment and how much gas that equipment requires,
  2. Explain source to power equipment when the well is not producing,
  3. Discuss seasonal variation in need of gas (e.g. heaters may require more gas in winter);
- b. What controls are in place;
  - c. How and where the gas is metered;
  - d. Include a flow diagram of the process (include meters, valves, safety controls, etc.);
  - e. Any CDPHE-APCD permit details; and
  - f. Acknowledge if the mineral owner has been notified and if they are to be compensated.

### **Set of Requirements 3**

#### **1. Crypto Currency Mining (CCM) Requirements**

If CCM equipment is installed on the Oil and Gas Location, regardless of who owns or operates the electricity generating and CCM equipment, the Gas Capture Plan/Form 2A will include:

- a. CCM in the equipment list on the Form 2A and on Layout Drawings attached to the Form 2A.
- b. Confirmation that the following registration requirements have been met:
  - i. If the following criteria are met, no further registration with ECMC is required:

1. If the entity who owns or leases the equipment being used to generate electricity is the Operator who produced the gas;
  2. The equipment is located on the Operator's Oil and Gas Location; and
  3. The gas is not processed beyond a simple separator (i.e. natural gas liquids (NGLs) are NOT being stripped out of the gas).
- ii. If the entity who owns or leases the equipment being used to generate electricity is not the Operator who produced the gas, the entity must be registered with ECMC as an Initial Purchaser.
  - iii. If the entity who owns or leases the equipment being used to generate electricity installs the equipment on an Oil and Gas Location, the entity must be registered as an Operator, providing proof of \$5 million general liability insurance, pursuant to Rule 705.b.
  - iv. If the entity who owns or leases the equipment being used to generate electricity is processing the gas beyond a simple separator (i.e. NGLs ARE being stripped out of the gas), the entity must be registered as a Downstream Gas Facility, providing the Financial Assurance required by Rule 703.d.

## **Set of Guidance 1**

### **1. Form 4 Sundry Notice Guidance**

To submit a Gas Capture Plan on a Form 4, use the Gas Capture tab. To make the Gas Capture tab available for editing, complete these steps on the Engineering/Environmental tab first:

- a. Select the Engineering/Environmental tab.

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- b. Below the heading “Technical Engineering and Environmental work”, check the box to indicate “Notice of Intent/Request for Approval”.
- c. Provide the date in the date field below “Notice of Intent/Request for Approval”.
- d. Check the Venting or Flaring (Rule 903) checkbox.

The screenshot shows the 'Engineering/Environmental' tab selected in the top navigation bar. Below the heading 'ENGINEERING AND ENVIRONMENTAL WORK', there is a checkbox for 'NOTICE OF CONTINUED TEMPORARILY ABANDONED STATUS'. Below this, there is a text field for 'Indicate why the well is temporarily abandoned and describe future plans for utilization in the COMMENTS box below, as required by Rule 434.b.(3)'. There are also date fields for 'Date well temporarily abandoned' and 'Mechanical Integrity Test (MIT) required. Date of last MIT'. Below the heading 'TECHNICAL ENGINEERING AND ENVIRONMENTAL WORK', there are two checkboxes: 'NOTICE OF INTENT/REQUEST FOR APPROVAL' and 'SUBSEQUENT REPORT'. Below these, there are date fields for 'Approximate Start Date' and 'Date of Activity'. At the bottom, there are checkboxes for 'Bradenhead Plan', 'Venting or Flaring (Rule 903)', and 'E&P Waste Management'. The 'Gas Capture' tab is grayed out in the top navigation bar.

Figure 1: A screenshot view of Form 4, Sundry Notice. The Gas Capture tab is grayed out because the “Venting or Flaring (Rule 903)” checkbox has not been selected. Red boxes are drawn around the fields required to be filled in to make the Gas Capture Tab available for editing. The required fields are, from top down, left to right, “Engineering/Environmental,” “Notice of Intent/Request for Approval,” “Subsequent Report,” and “Venting or Flaring (Rule 903)”.

2. The Operator will complete the Gas Capture Tab with all pertinent information provided in the boxes on the Form. A Gas Capture Plan submission does not require all fields be completed, but the following two fields **MUST** be completed for a submission to be considered complete:
  - a. An Electronic Data Deliverable for gas analytical data, including gas composition, heating value, and Hydrogen Sulfide content submitted with a Form 43. The Operator will add the Sample Site Facility ID on the Gas Capture Tab.

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- b. The box next to “A Gas Capture Plan that meets the requirements of Rule 903.e. is attached” must be checked.
3. The Gas Capture Plan with all the requirements of Rule 903.e. must be attached to the Form 4 using the tool on the “Attachments” tab to upload the file.

Figure 2: A screenshot view of all of the data fields on the Gas Capture Tab of Form 4, with red boxes around the required fields of “Gas Capture,” Sample Site Facility ID#,” and “A Gas Capture Plan that meets the requirements of Rule 903.e is attached.”

## Additional Information

### Common Errors and Issues Encountered by ECMC Staff

1. Not detailing how all gas is being used on-site



2. Not providing reasonable equipment consumption
3. Not listing controls in place
4. Not providing process Layout Drawings with the Form 2A
5. Not permitting sources through CDPHE-APCD
6. No consideration of seasonal variations
7. No explanation of power sources when Well is not producing
8. Assumed gas production volumes in plan not consistent with historical gas/oil ratio (GOR)

## **General Notes**

1. Combustion. If gas is to be combusted during drilling, completions, or other routine operations as allowed in Rule 903, then it must be combusted through an enclosed combustor with 98% design destruction efficiency.
2. Local Government CCM regulations. The Operator is required to comply with local regulation regarding CCM, regardless of approval of a Gas Capture Plan/OGDP with ECMC.

## **Frequently Asked Questions**

1. Are Emission Control Devices considered beneficial use?  
ECMC Response: No. The Commission does not intend for produced natural gas to be routed through a tank and vented or flared from the tank. Consistent with the Act's statutory prohibition on waste, if an Operator directs produced natural gas to a tank to be vented or flared, that waste of natural gas would nevertheless be considered Flaring. Because sending separable gas from a well or a separator to an emissions control device would meet the 100 Series definition of "Flaring," the Commission adopted standards to regulate such activities in Rule 903.c.(3).C.



2. Is routing excess gas through combustion devices allowed if permitted through APCD?

ECMC Response: Air Quality Control Commission (AQCC) regulations can also require the use of combustion devices to control natural gas emissions from separation equipment where an Operator does not route the gas to a gathering line. See AQCC Regulation Number 7, Part D, Section II.F, 5 Colo. Code Regs. § 1001-9:D.II.F. This combustion would fall within the definition of Flaring, because it is the Commission's intent to reduce the instances of Flaring this natural gas.

## Document Change Log

Change Date	Description of Changes
April 22, 2025	Updated Guidance for Dec 2025 Rules
June 17, 2025	Reviewed, ADA accessibility verified, prepared for publication

## **Appendix A - Associated Rules**

### **903.e. Gas Capture Plans.**

#### **e. Gas Capture Plans.**

##### **(1) Gas Capture Plan Submission.**

- A. On a Form 2A, Oil and Gas Location Assessment the Operator will commit to connecting to a gathering system by the Commencement of Production Operations, or submit a gas capture plan as an attachment to their Form 2A, pursuant to Rule 304.c.(12).
- B. Gas capture plans will demonstrate compliance with the requirements of Rules 903.b-d and include the following information:
  - i. A description and map of the location of the closest or contracted natural gas gathering system or point of sale.
  - ii. The name of the company operating the closest or contracted natural gas gathering system.
  - iii. The Operator's plan for connecting their facility to a natural gas gathering system or otherwise putting gas to beneficial use, including:
    - aa. Discussion of potential rights of way issues;
    - bb. Construction schedules;
    - cc. Date of availability of the gas Gathering Line;
    - dd. Whether the nearest or contracted gas gathering system has capacity to accept the anticipated gas to be produced at the location at the time of application; and

- ee. Options for beneficial use of natural gas that are alternatives to Flaring during production operations prior to connection to gas Gathering Lines, including, but not limited to: onsite use, natural gas liquid processing, electrical power generation, gas to liquid, reinjection for enhanced oil recovery, or other options.
  - iv. For a Wildcat (Exploratory) Well or if the Operator anticipates conducting a Production Evaluation or Productivity Test, a description of the planned Production Evaluation or Productivity Test and any issues related to the Operator's ability to connect to a gas Gathering Line.
  - v. Any anticipated safety risks that will require the Operator to allow gas to escape, rather than being captured or combusted during drilling operations, pursuant to Rule 903.b.(2).
  - vi. A description of operational best practices that will be used to minimize Venting during active and planned maintenance allowed pursuant to Rule 903.d.(1).B.vii. Procedures the Operator will employ to reduce the frequency of Well liquids unloading events.
  - viii. Anticipated volumes of liquids and gas production and a description of how separation equipment will be sized to optimize gas capture.
- (2) Verification. Operators will verify that their facility has been connected to a gathering line by submitting a Form 10, Certificate of Clearance pursuant to Rule 219.

- (3) Compliance. If an Operator does not connect its facility to a gathering line or otherwise put gas to beneficial use as described in the Operator's Form 2A or gas capture plan, the Director may require the Operator to shut in a Well until it is connected to a Gathering Line or the gas is put to beneficial use. The Operator may request a Commission hearing pursuant to Rule 503.g.(10), however, the Well will remain shut in until the Commission's hearing occurs.

### **Rule 903. Venting or Flaring Natural Gas**

Venting and Flaring of natural gas represent waste of an important energy resource and pose safety and environmental risks. Venting and Flaring, except as specifically allowed in this Rule 903, are prohibited.

#### **a. Notice to Local Governments and Emergency Responders.**

- (1) Prior Notice. As soon as practicable prior to, but no later than two hours before, any planned Flaring of natural gas allowed pursuant to this Rule 903, Operators will provide verbal, written, or electronic notice to the Relevant and Proximate Local Governments and to the local emergency response authorities.
- (2) Subsequent Notice. In the event of Flaring due to an Upset Condition, Operators will provide verbal, or electronic notice as soon as possible, but no later than 12 hours, to the Relevant and Proximate Local Governments and to the local emergency response authorities.
- (3) Waiver. Relevant and Proximate Local Governments and local emergency response authorities may waive their right to notice under this Rule 903.a at any time, pursuant to Rule 302.f.(1).A.
- (4) Recordkeeping. Operators will maintain records of notice provided pursuant to this Rule 903.a, and provide the records to the Director upon request.

#### **b. Emissions During Drilling Operations.**

- (1) Operators will capture or combust gas downstream of the mud-gas separator using best drilling practices while maintaining safe operating conditions.
- (2) If capturing or combusting gas would pose safety risks to onsite personnel, Operators may Vent and will provide verbal notification to the Director within 12 hours and submit a Form 4, Sundry Notice within 7 days. The Operator need not seek a formal variance pursuant to Rule 502. A Form 23, Well Control Report may also be required if the criteria in Rule 428.c are met. If Venting pursuant to this Rule 903.b.(2) exceeds 24 hours, the Operator will seek the Director's approval to continue Venting.
- (3) Combustors will be located a minimum of 100 feet from the nearest surface hole location and enclosed.

c. Emissions During Completion Operations.

- (1) Reduced Emission Completions Practices. Operators will adhere to reduced emission completion practices as specified in 40 C.F.R. § 60.5375a, as incorporated by reference in Rule 901.b, on all newly Completed and re-completed oil and gas Wells regardless of whether the Well is hydraulically fractured, unless otherwise specified in this Rule 903.c.
- (2) Flowback Vessels. Operators will enclose all Flowback vessels and adhere to the AQCC Regulation No. 7 standards for emission reduction from pre-production Flowback vessels as specified in 5 C.C.R. § 1001-9:D.VI.D, as incorporated by reference in Rule 901.b.
- (3) Operators may Flare gas during completion operations with specific written approval from the Director under any of the following circumstances:
  - A. The Operator obtains the Director's approval to Flare through an approved gas capture plan pursuant to Rule 903.e;

- B. The Operator submits, and the Director approves, a Form 4 allowing the Operator to Flare gas that would otherwise not be permitted pursuant to Rule 903.c.
- i. On the Form 4 the Operator will explain why Flaring is necessary to Complete the Well, and will protect and minimize adverse impacts to public health, safety, welfare, the environment, and wildlife resources.
  - ii. On the Form 4 the Operator will estimate anticipated Flaring volume and duration.
  - iii. On the Form 4 the Operator will explain its plan to connect the facility to a Gathering Line or otherwise utilize the gas in the future.
  - iv. The Director may approve a Form 4 requesting permission to Flare during completion if the Director determines that the Flaring is necessary to Complete the Well and will protect and minimize adverse impacts to public health, safety, welfare, the environment, and wildlife resources; or
- C. The Operator may direct gas to an emission control device and combust the gas if necessary to ensure safety or during an Upset Condition for a period not to exceed 24 cumulative hours. If Flaring pursuant to this Rule 903.c.(3).C exceeds 24 hours, the Operator will seek the Director's approval to continue Flaring. Within 7 days of the Flaring event, the Operator will submit a Form 4 reporting the Upset Condition or safety issues that resulted in the Flaring event and include the estimated volume of gas Flared.

d. Emissions During Production.

(1) After the Commencement of Production Operations at an Oil and Gas Location, Venting or Flaring of natural gas produced from any Completed Well is prohibited except under the following circumstances:

- A. Gas Flared or Vented during an Upset Condition is allowed for a period necessary to address the upset, not to exceed 24 cumulative hours. Operators will maintain records of the date, cause, estimated volume of gas Flared or Vented, and duration of each Upset Condition resulting in Flaring or Venting, and will make such records available to the Director upon request.
- B. Gas Vented during and as part of active and required maintenance and repair activity, including pipeline pigging, as long as the Venting is not prohibited by AQCC Regulation No. 7, 5 C.C.R. § 1001-9, as incorporated by reference in Rule 901.b. Operators will use operational best practices to minimize Venting during maintenance and repair activity.
- C. If approved by the Director on a Gas Capture Plan pursuant to Rule 903.e, gas Flared during a Production Evaluation or Productivity Test for a period not to exceed 60 days.
- D. Gas Vented during a Bradenhead test pursuant to Rule 419.
- E. Any event of Well liquids unloading, as long as the Well liquids unloading employs best management practices to minimize hydrocarbon emissions as required by the AQCC Regulation No. 7, 5 C.C.R. § 1001-9, as incorporated by reference in Rule 901.b. Operators will capture or Flare gas escaping into the air during liquids unloading if the escape of the gas poses a risk to public health, safety, or welfare due to the risk of a fire, explosion, or inhalation. Pursuant to Rule 405.s, all Well liquids unloading, including swabbing, will be reported to the Director. The Operator



will submit a Form 42, Field Operations Notice - Notice of Well Liquids Unloading, no less than:

- i. 48 hours prior to conducting Well liquids unloading; or
- ii. As soon as possible prior to conducting Well liquids unloading if 48 hours notice would require an alternative or extended Well liquids unloading practice that increases emissions.

F. Flaring or Venting approved pursuant to Rule 903.d.(3) or on a Form 4 prior to January 15, 2021.

(2) For any instance of Venting or Flaring permitted pursuant to Rules 903.d.(1).A-E for a period that exceeds 8 consecutive or 24 cumulative hours, the Operator will submit a Form 4 reporting:

- A. The estimated or measured volume and content of gas Vented or Flared;
- B. Gas analysis of the gas Vented or Flared, including hydrogen sulfide;
- C. Explanation, rationale, and cause for the Venting or Flaring event; and
- D. A description of any operational best practices used to minimize Venting during maintenance and repair activity.

(3) At Wells that have Commenced Production Operations prior to January 15, 2021 and that are Venting or Flaring natural gas because they are not connected to a natural gas Gathering Line or putting the natural gas to beneficial use, the Operator may request permission from the Director to Flare or Vent by submitting a gas capture plan via a Form 4 no later than the date the Operator's previously approved Form 4 expires and in no case later than January 15, 2022. If an Operator loses access to a Gathering Line after January 15, 2021, the Operator will submit a gas capture plan via a Form 4 within 30 days of losing the Gathering Line access. The

Operator may not Flare or Vent pursuant to this Rule 903.d.(3). unless and until the Director approves the Form 4. The Director may approve a one-time request to Flare or Vent for a period not to exceed 12 months, if the Director determines that Flaring or Venting is necessary to produce the Well, will minimize waste, and will protect and minimize adverse impacts to public health, safety, welfare, the environment, and wildlife resources. For any such Form 4 submitted prior to January 15, 2022, the Director will not approve the one-time request to Flare or Vent to any date after January 15, 2022. The gas capture plan on the Form 4 will describe:

- A. The estimated volume and content of the gas to be Flared or Vented;
- B. Gas analysis including hydrogen sulfide for the subject Well;
- C. For requests based on lack of available infrastructure, the Operator will state why the Well cannot be connected to infrastructure;
- D. When the Well(s) will be connected to infrastructure, why the Operator commenced production of the Well before infrastructure was available, and whether the mineral Owner will be compensated for the Vented or Flared gas; and
- E. Options for using the gas instead of Flaring or Venting, including to generate electricity, gas processing to recover natural gas liquids, or other options for using the gas.

**(4) Measurement and Reporting.**

- A. Operators will measure the volume of all gas Vented, Flared, or used at an Oil and Gas Location by direct measurement or by estimating the volume of gas Vented, Flared or used. The volume of gas Vented, Flared, or used will be reported on a per Well basis on the Form 7, Operator's Monthly Report of Operations.

- B. Operators will notify all mineral Owners of the volume of oil and gas that is Vented, Flared, or used on-lease. Operators will maintain records of such notice and provide the records to the Director upon request.
- (5) All Flared gas will be combusted in an enclosed device equipped with an auto-igniter or continuous pilot light and a design destruction efficiency of at least 98% for hydrocarbons.
- (6) Pits.
- A. Pits Constructed After January 15, 2021.
    - i. Operators will design, construct, and operate new Pits that are within 2,000 feet of an existing Building Unit or Designated Outside Activity Area to emit less than 2 tons per year (“tpy”) volatile organic compounds (“VOCs”).
    - ii. Operators will design, construct, and operate new Pits within Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld Counties to emit less than 2 tpy VOCs.
    - iii. Operators will design, construct, and operate new Pits in locations that do not meet the criteria of Rules 903.d.(6).A.i-ii to emit less than 5 tpy VOCs, unless:
      - aa. The Pit is used for recycling or reuse of produced water, subject to the approval of a reuse and recycling plan pursuant to Rule 905.a.(3);
      - bb. The Operator utilizes a centralized water distribution system to minimize trucks used to transport produced water; and

- cc. The Director approves the Operator's plan to minimize emissions pursuant to Rule 903.d.(6).A.iv based on consultation with the Air Pollution Control Division.
  - iv. Operators will design, construct, and operate new Pits to utilize control technology to minimize emissions to the extent reasonably achievable based on best available practices.
- B. Pits Constructed Prior to January 15, 2021. After January 15, 2023, all Pits constructed prior to January 15, 2021 will be operated to emit less than 5 tpy VOCs, unless:
  - i. The Pit is used for recycling or reuse of produced water and the Pit utilizes control technology to minimize emissions to the extent reasonably achievable, and the Operator submits and obtains the Director's approval of a reuse and recycling plan that meets the requirements of Rule 905.a.(3); or
  - ii. The Operator submits a Form 15, Earthen Pit Report/Permit pursuant to Rule 903.a.(6).C demonstrating that a greater allowable rate of emissions from the Pit is reasonable and necessary, and the Director approves the Form 15 based on consultation with the Air Pollution Control Division.
- C. Operators will provide the basis for their determination of applicability under Rule 903.d.(6) to the Director on a Form 15 submitted concurrently with the initial produced water quality analysis required by Rule 909.j. The basis for determination of applicability will:
  - i. State the Pit's estimated annual emissions in tpy VOCs;
  - ii. Describe the method used to estimate emissions; and

- iii. If the Operator seeks an exception pursuant to Rules 903.d.(6).B.i. or ii., describe the basis for why the exception should be granted.