

# STATE OF COLORADO

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
AIR POLLUTION CONTROL DIVISION  
TELEPHONE: (303) 692-3150



## CONSTRUCTION PERMIT

PERMIT NO: **14WE1232**

**Issuance 1**

DATE ISSUED:

ISSUED TO: **Encana Oil & Gas (USA) Inc.**

THE SOURCE TO WHICH THIS PERMIT APPLIES IS DESCRIBED AND LOCATED AS FOLLOWS:

Oil and gas facility, known as the State 3H facility, located in the NWSW of Section 16, Township 3N, Range 68W, in Weld County, Colorado.

THE SPECIFIC EQUIPMENT OR ACTIVITY SUBJECT TO THIS PERMIT INCLUDES THE FOLLOWING:

| Facility Equipment ID | AIRS Point | Description   |
|-----------------------|------------|---|
| Loadout               | 003        | Truck loadout of condensate. Emissions from the loadout are controlled by an enclosed flare |

THIS PERMIT IS GRANTED SUBJECT TO ALL RULES AND REGULATIONS OF THE COLORADO AIR QUALITY CONTROL COMMISSION AND THE COLORADO AIR POLLUTION PREVENTION AND CONTROL ACT C.R.S. (25-7-101 et seq), TO THOSE GENERAL TERMS AND CONDITIONS INCLUDED IN THIS DOCUMENT AND THE FOLLOWING SPECIFIC TERMS AND CONDITIONS:

### REQUIREMENTS TO SELF-CERTIFY FOR FINAL AUTHORIZATION

- YOU MUST notify the Air Pollution Control Division (the Division) no later than fifteen days after issuance of this permit, by submitting a Notice of Startup form to the Division.** The Notice of Startup form may be downloaded online at <https://www.colorado.gov/pacific/cdphe/other-air-permitting-notice>. Failure to notify the Division of startup of the permitted source is a violation of Air Quality Control Commission (AQCC) Regulation No. 3, Part B, Section III.G.1 and can result in the revocation of the permit.
- Within one hundred and eighty days (180) after issuance of this permit, compliance with the conditions contained in this permit shall be demonstrated to the Division. It is the owner or operator's responsibility to self-certify compliance with the conditions. Failure to demonstrate compliance within 180 days may result in revocation of the permit. (Reference: Regulation No. 3, Part B, III.G.2).
- This permit shall expire if the owner or operator of the source for which this permit was issued: (i) does not commence construction/modification or operation of this source

within 18 months after either, the date of issuance of this construction permit or the date on which such construction or activity was scheduled to commence as set forth in the permit application associated with this permit; (ii) discontinues construction for a period of eighteen months or more; (iii) does not complete construction within a reasonable time of the estimated completion date. The Division may grant extensions of the deadline per Regulation No. 3, Part B, III.F.4.b. (Reference: Regulation No. 3, Part B, III.F.4.)

4. The operator shall retain the permit final authorization letter issued by the Division after completion of self-certification, with the most current construction permit. This construction permit alone does not provide final authority for the operation of this source.

**EMISSION LIMITATIONS AND RECORDS**

5. Emissions of air pollutants shall not exceed the following limitations (as calculated in the Division's preliminary analysis). (Reference: Regulation No. 3, Part B, Section II.A.4)

**Annual Limits:**

| Facility Equipment ID | AIRS Point | Tons per Year | Emission Type |
|-----------------------|------------|---------------|---------------|
|                       |            | VOC           |               |
| Loadout               | 003        | 2.1           | Point         |

See "Notes to Permit Holder" for information on emission factors and methods used to calculate limits.

Compliance with the annual limits shall be determined by recording the facility's annual criteria pollutant emissions, (including all HAPs above the de-minimis reporting level) from each emission unit, on a rolling twelve (12) month total. By the end of each month a new twelve-month total shall be calculated based on the previous twelve months' data. The permit holder shall calculate emissions each month and keep a compliance record on site or at a local field office with site responsibility, for Division review. This rolling twelve-month total shall apply to all permitted emission units, requiring an APEN, at this facility.

6. The emission points in the table below shall be operated and maintained with the control equipment as listed in order to reduce emissions to less than or equal to the limits established in this permit (Reference: Regulation No.3, Part B, Section III.E.)

| Facility Equipment ID | AIRS Point | Control Device     | Pollutants Controlled |
|-----------------------|------------|--------------------|-----------------------|
| Loadout               | 003        | Enclosed Combustor | VOC                   |

**PROCESS LIMITATIONS AND RECORDS**

7. This source shall be limited to the following maximum processing rates as listed below. Monthly records of the actual processing rate shall be maintained by the owner or

operator and made available to the Division for inspection upon request. (Reference: Regulation 3, Part B, II.A.4)

**Process/Consumption Limits**

| AAIR<br>S<br>Point | Process Parameter  | Annual Limit |
|--------------------|--------------------|--------------|
| 003                | Condensate Loading | 410,520 BBL  |

The owner or operator shall calculate monthly process rates based on the calendar month.

Compliance with the annual throughput limits shall be determined on a rolling twelve (12) month total. By the end of each month a new twelve-month total is calculated based on the previous twelve months' data. The permit holder shall calculate throughput each month and keep a compliance record on site or at a local field office with site responsibility, for Division review.

- 8. Condensate loading to truck tanks shall be conducted by submerged fill. (Reference: Regulation 3, Part B, III.E)

**STATE AND FEDERAL REGULATORY REQUIREMENTS**

- 9. This source is located in an ozone non-attainment or attainment-maintenance area and is subject to the Reasonably Available Control Technology (RACT) requirements of Regulation Number 3, Part B, III.D.2.a. Condensate loading to truck tanks shall be conducted by submerged fill. (Reference: Regulation 3, Part B, III.E)
- 10. This source is subject to the odor requirements of Regulation No. 2. (State only enforceable)
- 11. The owner or operator shall follow loading procedures that minimize the leakage of VOCs to the atmosphere including, but not limited to (Reference: Regulation 3, Part B, III.E):
  - a. Hoses, couplings, and valves shall be maintained to prevent dripping, leaking, or other liquid or vapor loss during loading and unloading.
  - b. All compartment hatches (including thief hatches) shall be closed and latched at all times when loading operations are not active, except for periods of maintenance, gauging, or safety of personnel and equipment.
  - c. The owner or operator shall inspect loading equipment and operations onsite at the time of inspections to monitor compliance with Condition 11 (a) and (b) above. The inspections shall occur at least monthly. Each inspection shall be documented in a log available to the Division on request.
- 12. All hydrocarbon liquid loading operations, regardless of size, shall be designed, operated and maintained so as to minimize leakage of volatile organic compounds to the atmosphere to the maximum extent practicable.

### **OPERATING & MAINTENANCE REQUIREMENTS**

13. Upon startup of these points, the owner or operator shall follow the most recent operating and maintenance (O&M) plan and record keeping format approved by the Division, in order to demonstrate compliance on an ongoing basis with the requirements of this permit. Revisions to your O&M plan are subject to Division approval prior to implementation. (Reference: Regulation No. 3, Part B, Section III.G.7.)
14. Flare shall be enclosed, have no visible emissions, and be designed so that an observer can, by means of visual observation from the outside of the enclosed flare, or by other convenient means approved by the Division, determine whether the flare is operating properly.
15. The owner or operator of a loadout at which vapor balancing is used to control emissions shall:
  - a. Install and operate the vapor collection and return equipment to collect vapors during loading of tank compartments of outbound transport trucks and return these vapors to the stationary source storage tanks.
  - b. Include devices to prevent the release of vapor from vapor recovery hoses not in use.
  - c. Install dry-break loading couplings to prevent hydrocarbon liquid loss during uncoupling from vehicles.
  - d. Use operating procedures to ensure that hydrocarbon liquid cannot be transferred unless the vapor collection equipment is in use.
  - e. Operate all recovery and disposal equipment at a back pressure less than the pressure relief valve setting of transport vehicles.
  - f. Inspect thief hatch seals annually for integrity and replace as necessary. Thief hatch covers shall be weighted and properly seated.
  - g. Inspect pressure relief devices (PRD) annually for proper operation and replace as necessary. PRDs shall be set to release at a pressure that will ensure flashing, working and breathing losses are routed to the control device under normal operating conditions.
  - h. Document annual inspections of thief hatch seals and PRD with an indication of status, a description of any problems found, and their resolution.

### **COMPLIANCE TESTING AND SAMPLING**

16. This source is not required to comply with any testing and sampling requirements.

### **ADDITIONAL REQUIREMENTS**

17. A revised Air Pollutant Emission Notice (APEN) shall be filed: (Reference: Regulation No. 3, Part A, II.C)

- a. Annually by April 30<sup>th</sup> whenever a significant increase in emissions occurs as follows:  
**For any criteria pollutant:**  
For sources emitting **less than 100 tons per year**, a change in actual emissions of five (5) tons per year or more, above the level reported on the last APEN; or  
For volatile organic compounds (VOC) and nitrogen oxides sources (NO<sub>x</sub>) in ozone nonattainment areas emitting **less than 100 tons of VOC or NO<sub>x</sub> per year**, a change in annual actual emissions of one (1) ton per year or more or five percent, whichever is greater, above the level reported on the last APEN; or  
For sources emitting **100 tons per year or more**, a change in actual emissions of five percent or 50 tons per year or more, whichever is less, above the level reported on the last APEN submitted; or  
**For any non-criteria reportable pollutant:**  
If the emissions increase by 50% or five (5) tons per year, whichever is less, above the level reported on the last APEN submitted to the Division.
  - b. Whenever there is a change in the owner or operator of any facility, process, or activity; or
  - c. Whenever new control equipment is installed, or whenever a different type of control equipment replaces an existing type of control equipment; or
  - d. Whenever a permit limitation must be modified; or
  - e. No later than 30 days before the existing APEN expires.
18. Federal regulatory program requirements (i.e. PSD, NANSR) shall apply to this source at any such time that this source becomes major solely by virtue of a relaxation in any permit condition. Any relaxation that increases the potential to emit above the applicable Federal program threshold will require a full review of the source as though construction had not yet commenced on the source. The source shall not exceed the Federal program threshold until a permit is granted. (Regulation No. 3 Part D).

### **GENERAL TERMS AND CONDITIONS**

19. This permit and any attachments must be retained and made available for inspection upon request. The permit may be reissued to a new owner by the APCD as provided in AQCC Regulation No. 3, Part B, Section II.B upon a request for transfer of ownership and the submittal of a revised APEN and the required fee.
20. If this permit specifically states that final authorization has been granted, then the remainder of this condition is not applicable. Otherwise, the issuance of this construction permit does not provide "final" authority for this activity or operation of this source. Final authorization of the permit must be secured from the APCD in writing in accordance with the provisions of 25-7-114.5(12)(a) C.R.S. and AQCC Regulation No. 3, Part B, Section III.G. Final authorization cannot be granted until the operation or activity commences and has been verified by the APCD as conforming in all respects with the conditions of the permit. Once self-certification of all points has been reviewed and approved by the Division, it will provide written documentation of such final authorization. **Details for**

**obtaining final authorization to operate are located in the Requirements to Self-Certify for Final Authorization section of this permit.**

21. This permit is issued in reliance upon the accuracy and completeness of information supplied by the owner or operator and is conditioned upon conduct of the activity, or construction, installation and operation of the source, in accordance with this information and with representations made by the owner or operator or owner or operator's agents. It is valid only for the equipment and operations or activity specifically identified on the permit.
22. Unless specifically stated otherwise, the general and specific conditions contained in this permit have been determined by the APCD to be necessary to assure compliance with the provisions of Section 25-7-114.5(7)(a), C.R.S.
23. Each and every condition of this permit is a material part hereof and is not severable. Any challenge to or appeal of a condition hereof shall constitute a rejection of the entire permit and upon such occurrence, this permit shall be deemed denied *ab initio*. This permit may be revoked at any time prior to self-certification and final authorization by the Air Pollution Control Division (APCD) on grounds set forth in the Colorado Air Quality Control Act and regulations of the Air Quality Control Commission (AQCC), including failure to meet any express term or condition of the permit. If the Division denies a permit, conditions imposed upon a permit are contested by the owner or operator, or the Division revokes a permit, the owner or operator of a source may request a hearing before the AQCC for review of the Division's action.
24. Section 25-7-114.7(2)(a), C.R.S. requires that all sources required to file an Air Pollution Emission Notice (APEN) must **pay an annual fee** to cover the costs of inspections and administration. If a source or activity is to be discontinued, the owner must notify the Division in writing requesting a cancellation of the permit. Upon notification, annual fee billing will terminate.
25. Violation of the terms of a permit or of the provisions of the Colorado Air Pollution Prevention and Control Act or the regulations of the AQCC may result in administrative, civil or criminal enforcement actions under Sections 25-7-115 (enforcement), -121 (injunctions), -122 (civil penalties), -122.1 (criminal penalties), C.R.S.

By:



Christopher Kester  
Permit Engineer

**Permit History**

| Issuance   | Date          | Description   |
|------------|---------------|---|
| Issuance 1 | This Issuance | Issued to Encana Oil & Gas (USA) Inc. New syn minor facility. |

Notes to Permit Holder at the time of this permit issuance:

- 1) The permit holder is required to pay fees for the processing time for this permit. An invoice for these fees will be issued after the permit is issued. The permit holder shall pay the invoice within 30 days of receipt of the invoice. Failure to pay the invoice will result in revocation of this permit (Reference: Regulation No. 3, Part A, Section VI.B.)
- 2) The production or raw material processing limits and emission limits contained in this permit are based on the consumption rates requested in the permit application. These limits may be revised upon request of the owner or operator providing there is no exceedance of any specific emission control regulation or any ambient air quality standard. A revised air pollution emission notice (APEN) and complete application form must be submitted with a request for a permit revision.
- 3) This source is subject to the Common Provisions Regulation Part II, Subpart E, Affirmative Defense Provision for Excess Emissions During Malfunctions. The owner or operator shall notify the Division of any malfunction condition which causes a violation of any emission limit or limits stated in this permit as soon as possible, but no later than noon of the next working day, followed by written notice to the Division addressing all of the criteria set forth in Part II.E.1. of the Common Provisions Regulation. See: <https://www.colorado.gov/pacific/cdphe/aqcc-regs>
- 4) The following emissions of non-criteria reportable air pollutants are estimated based upon the process limits as indicated in this permit. This information is listed to inform the operator of the Division's analysis of the specific compounds emitted if the source(s) operate at the permitted limitations.

| AIRS Point | Pollutant | CAS #   | BIN | Uncontrolled Emission Rate (lb/yr) | Are the emissions reportable? | Controlled Emission Rate (lb/yr) |
|------------|-----------|---------|-----|------------------------------------|-------------------------------|----------------------------------|
| 003        | Benzene   | 71432   | A   | 788                                | Yes                           | 39                               |
|            | n-Hexane  | 110543  | C   | 1953                               | Yes                           | 98                               |
|            | Toluene   | 108883  | C   | 1391                               | Yes                           | 70                               |
|            | Xylenes   | 1130207 | C   | 612                                | Yes                           | 31                               |

- 5) The emission levels contained in this permit are based on the following emission factors:

| CAS     | Pollutant | Emission Factors - Uncontrolled |                     | Emission Factors - Controlled |                     |
|---------|-----------|---------------------------------|---------------------|-------------------------------|---------------------|
|         |           | lb/BBL loaded                   | Source              | Lb/BBL loaded                 | Source              |
|         | VOC       | 0.2                             | HYSYS and EPA Tanks | 0.01                          | HYSYS and EPA Tanks |
| 71432   | Benzene   | 0.046                           |                     | 0.0023                        |                     |
| 110543  | n-Hexane  | 0.11                            |                     | 0.0055                        |                     |
| 108883  | Toluene   | 0.081                           |                     | 0.004                         |                     |
| 1130207 | Xylenes   | 0.036                           |                     | 0.0018                        |                     |

The uncontrolled VOC emission factor was calculated using AP-42, Chapter 5.2, Equation 1 (version 1/95) using the following values:

$$L = 12.46 \cdot S \cdot P \cdot M / T$$

$$S = 0.6 \text{ (Submerged loading: dedicated normal service)}$$

$$P \text{ (true vapor pressure)} = 4.9 \text{ psia}$$

$$M \text{ (vapor molecular weight)} = 68 \text{ lb/lb-mol}$$

$$T \text{ (temperature of liquid loaded)} = 512.12 \text{ }^\circ\text{R}$$

The uncontrolled non-criteria reportable air pollutant (NCRP) emission factors were calculated by using Hysys to model the flashing losses and EPA Tanks to model the working and breathing losses.

Controlled emission factors are based on a flare efficiency of 95%.

- 6) In accordance with C.R.S. 25-7-114.1, each Air Pollutant Emission Notice (APEN) associated with this permit is valid for a term of five years from the date it was received by the Division. A revised APEN shall be submitted no later than 30 days before the five-year term expires. Please refer to the most recent annual fee invoice to determine the APEN expiration date for each emissions point associated with this permit. For any questions regarding a specific expiration date call the Division at (303)-692-3150.

- 7) This facility is classified as follows:

| Applicable Requirement | Status   |
|------------------------|--|
| Operating Permit       | Synthetic Minor Source of:<br><i>VOC, n-hexane</i> |
| NANSR                  | Synthetic Minor Source of:<br><i>VOC, n-hexane</i> |

- 8) Full text of the Title 40, Protection of Environment Electronic Code of Federal Regulations can be found at the website listed below:

<http://ecfr.gpoaccess.gov/>

| <b>Part 60: Standards of Performance for New Stationary Sources</b>                            |                     |                                |
|--|---------------------|--------------------------------|
| NSPS   | 60.1-End            | Subpart A – Subpart KKKK       |
| NSPS   | Part 60, Appendixes | Appendix A – Appendix I        |
| <b>Part 63: National Emission Standards for Hazardous Air Pollutants for Source Categories</b> |                     |                                |
| MACT   | 63.1-63.599         | Subpart A – Subpart Z          |
| MACT   | 63.600-63.1199      | Subpart AA – Subpart DDD       |
| MACT   | 63.1200-63.1439     | Subpart EEE – Subpart PPP      |
| MACT   | 63.1440-63.6175     | Subpart QQQ – Subpart YYYYY    |
| MACT   | 63.6580-63.8830     | Subpart ZZZZ – Subpart MMMMM   |
| MACT   | 63.8980-End         | Subpart NNNNN – Subpart XXXXXX |

- 9) A self certification form and guidance on how to self-certify compliance as required by this permit may be obtained online at: <http://www.colorado.gov/pacific/cdphe/air-permit-self-certification>