



# GENERAL CONSTRUCTION PERMIT

## Oil and Gas Industry Storage Tanks

Permit Number: GP08 Version 2

Final Approval

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Note: See the Oil and Gas Industry Storage Tank guidance document (PS Memo 14-03) for further information on definitions, and emission calculation guidelines.

## **I. General Permit Applicability**

### **I.A. Definitions**

I.A.1. "Storage Tank" means any fixed roof storage vessel or series of storage vessels that are manifolded together via liquid line. Storage vessel is as defined in 40 CFR Part 60, Subpart OOOO and OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities.

I.B. Qualified Sources: The owner or operator of any oil and gas industry (exploration and production (E&P), non-E&P, midstream and downstream) operation that can comply with all of the operating conditions described in Section II of this permit and meet all of the requirements in Section I may register for this general permit. This general permit covers the following:

#### **I.B.1. Storage Tanks, including:**

I.B.1.a. Condensate storage tanks with a design capacity less than or equal to 10,000 barrels per storage vessel, used for the storage of condensate;

I.B.1.b. Crude oil storage tanks with a design capacity less than or equal to 10,000 barrels per storage vessel, used for the storage of crude oil;

I.B.1.c. Produced water storage tanks used for the storage of produced water; and

I.B.1.d. Intermediate hydrocarbon liquid storage tanks with a design capacity less than or equal to 10,000 barrels per storage vessel, used for storage of intermediate hydrocarbon liquid.

I.B.2. Combustion devices, vapor recovery units, or other Division approved control equipment used to reduce emissions below the limits specified in Section II.

I.B.3. Equipment as described in condition I.B.1 and I.B.2 located at a true minor source or synthetic minor source for Operating Permit (OP), New Source Review (NSR), and Maximum Achievable Control Technology (MACT) program applicability, except as provided for in I.B.4 below.

I.B.4. Stationary Sources that become subject to Title V Operating Permit requirements or become classified as an existing major stationary source for which a complete GP-08 registration request is received by the division prior to the effective date (January 27, 2020) on which the Denver-Boulder-Greeley-Ft.





II.B.1.a. The owner or operator may be subject to emission control, auto igniter, operate without venting, storage tank emissions management (STEM) plan and recordkeeping requirements contained in Regulation 7, Section XVII.B and Section XVII.C.

## II.C. General Operating Conditions

II.C.1. This source is subject to the odor requirements of Regulation No. 2. (State only enforceable)

II.C.2. The AIRS number (e.g., 123/1234/001) and permit number (i.e., GP08) must be marked on the subject equipment for ease of identification. (Reference: Regulation No. 3, Part B, Section III.E.) (State only enforceable)

II.C.3. The owner or operator must follow the Operating and Maintenance / Recordkeeping plans specified in Sections IV and V. (Reference: Regulation No. 3, Part B, Section III.I.6.)

II.C.4. This source's condensate, crude oil, produced water and intermediate hydrocarbon liquid throughput shall be limited by the emission limits specified in this permit, and all other activities, operational parameters and numbers of equipment as stated in the registration. (Reference: Regulation No. 3, Part B, Section II.A.4.)

## III. Alternative Operating Scenario (AOS)

III.A. Provided that the emission limits set forth in Section II.A are still met, the owner or operator may invoke an AOS for the following modifications to an existing storage tank registered under this general permit without modifying the general permit registration:

- Increase in throughput resulting in a facility classification change;
- Addition or replacement of a control device by one of a different type; or
- Addition or replacement of a separator or storage vessel to a currently registered emission point

III.B. The owner or operator must maintain a log to contemporaneously record the date and description of any modification made under the provisions of this AOS. (Reference: Regulation No. 3, Part A, Section IV.A.1.)

III.C. If exercising the AOS, a revised APEN should be submitted by April 30<sup>th</sup> of the year following the modification(s). The revised APEN must be accompanied by the



appropriate APEN filing fee and a cover letter detailing all such AOS modifications that occurred within the previous calendar year.

III.D. The following changes are not considered modifications and are not subject to Condition III.C provided that none of the modifications listed in Condition III.A occurred within the same calendar year. These changes should be reflected in any revised APEN required by Condition VII.A.1.

- Changes in throughput not resulting in a facility classification change;
- Removal of a well serviced by the storage tank;
- Re-piping of an existing well;
- Addition of a new well to the battery; or
- Removal of a separator or storage tank
- Routine maintenance and repair;
- Replacement of control device by same type of control equipment.

#### **IV. Operating and Maintenance Plan**

IV.A. If a control device is used to comply with the emission limits of this permit the following conditions must be met:

IV.A.1. Control devices must be adequately designed, and operated and maintained according to manufacturer specifications to achieve a control efficiency of at least 95%, and to handle reasonably foreseeable fluctuations in emissions of VOCs. Fluctuations in emissions that occur when the separator dumps into the storage tank are reasonably foreseeable.

IV.A.2. Combustion devices operated to control emissions 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 combustion device, or by other convenient means approved by the Division, determine whether the combustion device is operating properly.

IV.A.3. For all new and modified storage tanks controlled by a combustion device, auto-igniters must be installed and operational, beginning the date of first production for E&P locations and upon commencement of storage tank operation for non-E&P locations after any new storage tank installation or storage tank modification.

IV.A.4. If a boiler or process heater is used as a control device the storage tank vent stream must be introduced with the primary fuel or used as the primary fuel. In addition, the boiler or process heater must be equipped with and operate a continuous burning pilot flame.



- IV.A.5. For each control device, owner or operator must keep a maintenance log on site (at the field office). The log must display the date, time, and nature of each maintenance activity. Maintenance log may also be located at a local office or electronically, and made available upon request.
- IV.A.6. Owners and operators of storage tanks covered by this permit must route all VOC emissions to air pollution control equipment and must operate without venting VOC emissions from the thief hatch (or other access point to the tank) or pressure relief device during normal operations unless venting is reasonably required for maintenance, gauging or safety of personnel or equipment.
- IV.B. All condensate, crude oil, produced water or intermediate hydrocarbon liquid collection, storage, processing and handling 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.
- IV.B.1. If a control device is used to comply with the emission limits of this permit leakage of VOCs to the atmosphere must be minimized as follows:
- IV.B.1.a. Thief hatch seals must be inspected for integrity monthly and replaced as necessary. Thief hatch covers must be weighted and properly seated.
- IV.B.1.b. Pressure relief valves (PRV) must be inspected for proper operation monthly and replaced as necessary. PRVs must 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.
- IV.B.1.c. Monthly inspections of thief hatches and PRVs must be documented with an indication of status, a description of any problems found, and their resolution.
- IV.C. Storage tanks controlled by a flare or other combustion device must be inspected on a weekly basis. Owner or operator must monitor and document the proper operation of the control device. Indications of improper operation for a combustion device include, but are not limited to, absence of auto-igniter or pilot light, malfunction of electronic ignition, and/or presence of smoke. Owner or operator must also check and document on a weekly basis that the valves for piping of gas to the auto-igniter or pilot light and piping of waste gas to the control device are open. A check box is suitable for recording proper operation. Improper operation of a control device must be further documented with a description of the problem and its resolution, the date range the control was inoperable, and the condensate, crude oil, produced water and intermediate hydrocarbon liquid production through the storage tank during the downtime. Inspections can be done by either visible observation or other means approved by

the Division. During control device downtime, emissions must be considered to be uncontrolled.

**V. Recordkeeping Plan**

- V.A. Records may be kept in either electronic format or hard copy provided that they can be promptly supplied to the Division upon its request. All records must be retained for a period of five years.
- V.B. For storage tanks, the following records must be maintained on site or at a local field office with site responsibility for Division review:
- V.B.1. The current version of this general construction permit.
  - V.B.2. The most recently submitted APEN and any associated site-specific emission factor documentation.
  - V.B.3. The general permit registration approval letter.
  - V.B.4. Records of installation dates for each individual storage vessel installed.
  - V.B.5. Records that clearly demonstrate compliance with the emission limits of this permit. This must include the most current condensate, crude oil, produced water and intermediate hydrocarbon liquid production records necessary to calculate emissions in accordance with this Condition V.B.5 and documentation of all periods of control device downtime.
    - V.B.5.a. For sources located at a true minor facility, compliance with the emission limits in Section II.A must be determined by calculating the annual emissions from each storage tank for the calendar year.
    - V.B.5.b. For sources located at a synthetic minor or major facilities, compliance with the emission limits in Section II.A must be determined by recording the annual emissions from each storage tank on a rolling (12) month total. By the end of each month a new twelve-month total is calculated based on the previous twelve months' data. During the first year of operation, compliance must be assumed providing that cumulative emissions from all months of operation do not exceed the emission limits in Section II.A.
  - V.B.6. Records required by Conditions III.B (AOS), IV.B.1.c (Storage tank inspections) and IV.C (Control device monitoring).

**VI. Additional Requirements for Sources located in the 8 Hour Ozone Control Area**

**VI.A. Condensate Storage Tanks**

VI.A.1. This Section VI only applies to facilities located in the 8-hour Ozone Control Area. (Reference: Regulation No. 7, Section II.A.1.)

VI.A.2. Emission reductions below the limit set forth in Condition II.A.1 may be necessary to achieve the company-wide emission reductions required by Regulation No. 7, Section XII.D.2.

VI.A.3. Control devices used to comply with Regulation No. 7, Section XII.D.2. must be a combustion device or a vapor recovery unit and must meet all requirements of Regulation No. 7, Section XII.C.1. Alternative control equipment must be approved via an individual permit as required by Regulation No. 7, Section XII.D.2.b.

VI.A.4. All recordkeeping and reporting requirements of Regulation No. 7, Sections XII.F must be met. Records kept pursuant to Regulation No. 7, Section XII.F may be used to demonstrate compliance with Condition V.B.5 of this permit.

**VII. General Permit Terms and Administration**

VII.A. A facility that is classified as a major source for Title V Operating Permit requirements and is operating under Condition I.B.4 must submit an application to incorporate the terms of this general permit into the Operating Permit. The due date for this application is one year from the date on which the facility becomes subject to Title V Operating Permit requirements.

VII.B. In accordance with Colorado Regulation No. 3, Part C, Section V.C.5, some or all of the monitoring specified in this general permit will be incorporated as specific conditions in the source's Title V Operating Permit (if applicable). Additional monitoring not listed in this general permit may be included in the source's Operating Permit in order to satisfy the periodic monitoring requirements of Section V.C.5.b.

**VII.C. General Terms**

VII.C.1. A revised APEN shall be filed: (Reference: Regulation No. 3, Part A, Section II.C.)

VII.C.1.a. Annually by April 30<sup>th</sup> of the year following a significant increase in emissions as follows:



- VII.C.1.a.(i) For VOC, a change in actual emissions of five (5) tons per year or more, above the level reported on the last APEN; or
- VII.C.1.a.(ii) For volatile organic compounds and nitrogen oxides sources in ozone non-attainment areas, a change in annual actual emissions of one ton per year or more or five percent, whichever is greater, above the level reported on the last APEN submitted to the Division; or
- VII.C.1.a.(iii) 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.
- VII.C.1.b. Whenever there is a change in the owner or operator of any facility, process, or activity; or
- VII.C.1.c. As required by the alternative operating scenario allowed by Section III.
- VII.C.1.d. No later than 30 days before the existing APEN expires.
- VII.C.2. The requirements of Colorado Regulation No. 3, Part D shall apply at such time that any stationary source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation that was established after August 7, 1980, on the capacity of the source or modification to otherwise emit a pollutant such as a restriction on hours of operation (Colorado Regulation No. 3, Part D, Sections VI.B.4 and/or V.A.7.b).
- VII.C.3. Sources covered by this General Permit are subject to the Common Provisions Regulation Part II, Subpart E, Affirmative Defense Provision for Excess Emissions During Malfunctions. The owner or operator must notify the Division of any upset 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 explaining the cause of the occurrence and that proper action has been or is being taken to correct the conditions causing said violation and to prevent such excess emission in the future.
- VII.C.4. 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 and specific terms and conditions included in this document.



- VII.C.5. Unless specifically stated otherwise, the general and specific conditions contained in this permit have been determined by the Division to be necessary to assure compliance with the provisions of Section 25-7-114.5(7)(a), C.R.S.
- VII.C.6. 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.
- VII.C.7. 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.
- VII.C.8. 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.
- VII.C.9. Registration under this permit is approved in reliance upon the accuracy and completeness of information supplied by the applicant and is conditioned upon operation of the source, in accordance with this information and with representations made by the applicant or applicant's agents. It is valid only for the equipment and operations or activity specifically identified on the general permit registration.
- VII.D. Registration Revision / Termination
- VII.D.1. The Division may deny or revoke registration under the general permit under the circumstances specified in Regulation No. 3, Part B, Section III.I.3.c.
- VII.D.2. A registration under this general permit may be reissued to a new owner or in a new company name by the Division as provided in Regulation No. 3, Part B, Section II.B. upon a request for transfer of ownership or company name change and the submittal of a revised APEN and the required fees.
- VII.D.3. Registration under this general permit is voluntary. The owner or operator may withdraw or cancel a registration under this general permit at any time by notifying the Division in writing.
- VII.E. General Permit Revision / Termination
- VII.E.1. This general permit remains in effect until revised or terminated by the Division in accordance with the provisions of Regulation No. 3.



- VII.E.2. After public notice and comment as provided by Regulation No. 3, Part B, Section III.I.7., the Division may revise this general permit in order to add or delete requirements or limitations to the permit. This public notice shall be conducted in a manner consistent with the provisions of Regulation No. 3, Part B, Section III.C.4.
- VII.E.3. If a revised general permit is issued by the Division, any existing registration to use the general permit will be automatically converted to a registration to use the revised general permit, and the owner or operator is subject to requirements of the revised general permit. Persons not wishing to continue coverage under the revised general permit have the option of applying for an individual permit as required by Regulation No. 3, Part B.
- VII.E.4. If the Division terminates this general permit, it will provide written notice to affected registrants prior to the termination of the general permit. The notice will advise registrants that they must apply for an individual permit as required by Regulation No. 3, Part B.
- VII.E.5. The Division may require any source authorized by a general construction permit to apply for and obtain an individual permit if circumstances have changed since the time of the original general permit application so that the source is no longer appropriately controlled and/or permitted under the general construction permit. (Reference: Regulation No. 3, Part B, Section III.I.3.c.(i)(B))

#### VII.F. General Permit Registration Approval Process

- VII.F.1. Conditional certification of a registration under this general permit is effective from the date the complete registration request is received by the Division. A complete registration request consists of all General Permit application materials required by the Division. The owner or operator may commence construction and operation of the storage tank as represented in the registration upon receipt of the completed registration request by the Division. In the event the storage tank does not qualify for registration under the general permit the owner or operator accepts the liability of commencing these activities.
- VII.F.2. The Division will determine completeness of the General Permit registration request within sixty (60) days of the date of receipt of the request and provide written notification to the applicant. If the applicant does not receive notification of a completeness determination from the Division within sixty (60) days, the General Permit registration request shall be deemed complete for the purpose of Condition VII.D.1

VII.F.3. The Division has ninety (90) calendar days from the date the Division receives a complete General Permit registration request to provide the applicant with a written approval or denial of the registration.

**VIII. Colorado Oil and Gas Conservation Commission Requirements**

VIII.A. This permit fulfills the requirement to hold a valid permit reflecting the storage tank and associated control device per the Colorado Oil and Gas Conservation Commission rule 805b(2)(A).

**Permit History**

Issuance	Date	Description
Issuance 1	8 August 2014	Initial issuance
Issuance 2	This Issuance	Revised to address the Denver ozone nonattainment area re-classification from moderate to serious