COLORADO
Air Pollution Control Division
Department of Public Health & Environment

PS Memo 05-01

To: Stationary Sources Program, Local Agencies, and Regulated Community

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Subject: Oil & Gas Atmospheric Condensate Storage Tank Batteries
Regulatory Definitions and Permitting Guidance

This guidance document is intended to answer frequently asked questions concerning oil and gas industry atmospheric condensate storage tank batteries. This document does not address any other equipment types that may be part of a common facility with a tank battery.

Revision History	
March 7, 2005	Initial issuance. This guidance document replaces the October 01, 2003 'Condensate Issues' memo from Jim King and Roland Hea.
May 12, 2009	First revision. This guidance document replaces the March 7, 2005 version from Roland C. Hea and Dave Ouimette.
October 1, 2009	Second revision. This guidance document replaces the May 12, 2009 version from Mark McMillan. It was primarily updated to account for changes related to revisions to the general permit (GP) for condensate tanks (GP01) and to provide information related to the revised Colorado Oil and Gas Conservation Commission rules (805 series).
May 1, 2017	Third revision. This guidance document replaces the October 1, 2009 version from Chris Laplante and Roland C. Hea. This guidance document was updated to account for changes related to APEN fee structure, approved methods for site specific emission factor development and methods for estimating secondary emissions from storage tanks.

Topic **Page**

Policy Disclaimer

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1. DEFINITIONS

This section contains definitions of some terms that are used in this document and/or Colorado Air Quality Control Commission Regulation Number 3 (Reg. 3) and/or Regulation Number 7 (Reg. 7). Additional definitions are available in Reg. 3, Part A, II.B; Reg. 3, Part C, I.A; Reg. 7, II.A; Reg. 7, XII.B; Reg. 7, XVII.A, and Common Provisions Reg. 2, 1.G.

1.1. ***Alternate Operating Scenario (AOS)***

An AOS is a provision in a General Permit (GP) that allows operational flexibility. It allows tank batteries to be modified without providing notice to the Colorado Air Pollution Control Division (Division) prior to the modification.

1.2. ***Atmospheric Storage Tanks or Atmospheric Condensate Storage Tanks***

A type of condensate storage tank that vents, or is designed to vent, to the atmosphere. (see Reg. 7, XII.B.3 and Reg 7, XVII.A.2)

1.3. ***Condensate***

A hydrocarbon liquid that has an American Petroleum Institute (API) gravity greater than or equal to 40° API at 60° F.

1.4. ***Control Efficiency***

For the purpose of this guidance document, the term control efficiency refers to the overall control efficiency (i.e., the overall percentage by which emissions will be reduced.) This control efficiency should take into consideration the collection efficiency as well as destruction and/or emission reduction efficiency. The control efficiency accepted by the Division for flares and vapor recovery units (VRUs) is 95 percent. A higher efficiency may be used if appropriate and if supporting data is provided to and approved by the Division. (see Reg. 7, II.A.8)

1.5. ***Crude Oil***

A hydrocarbon liquid that has an American Petroleum Institute (API) gravity less than 40° API at 60° F, based on an annual average of all samples. The annual average is based on the most recent 12 contiguous months. If the site did not operate at all times during the most recent 12 months, samples from previous months shall be included in the average such that 12 complete months of data is included. If the site has been in operation for less than 12 months, all available samples shall be used; the annual average shall be determined upon reaching 12 months of operation.

1.6. ***Denver 1-hour Ozone Attainment/Maintenance Area***

Jefferson and Douglas counties, the Cities and Counties of Denver and Broomfield, Boulder County (excluding Rocky Mountain National Park), Adams County west of Kiowa Creek, and Arapahoe County west of Kiowa Creek.

1.7. ***Drip Pot***

A container used to separate condensed liquids from gas streams. The Division considers a drip pot to be a non-exploration and production (E&P) condensate tank.

1.8. ***Dual Product Storage Tank***

Contains commingled condensate and produced water generated via a 2-phase separator.

1.9. ***Exploration and Production (E&P) Equipment***

All equipment from the wellhead through custody transfer. The first physical separation of the multi-phase mixture of gas, hydrocarbon liquids, and water from oil and gas wells occurs in E&P equipment. Typical E&P equipment includes the wellhead assembly, pump jack, separators, tank batteries, glycol dehydrator still vent, engines, miscellaneous natural gas combustion sources, truck loading, and control devices. For the purposes of this document, custody transfer occurs at the E&P site.

1.10. ***Eight-Hour Ozone Control Area***

Adams, Arapahoe, Boulder (includes part of Rocky Mountain National Park), Douglas, and Jefferson counties; the Cities and Counties of Denver and Broomfield; and portions of Larimer and Weld counties (see Reg. 7, II.A.1.a and II.A.1.b)

1.11. ***General Permit (GP)***

A GP is a single permit issued to cover numerous single sources with similar operations, processes, and emissions and that are subject to similar requirements. The GP provides an additional, voluntary permitting option for these sources. (Reg. 3, Part A, Section I.B.21. and Part B, Section III.I).

In this guidance document, GP refers to GP01 for oil and gas industry condensate tank batteries. GP01 only covers sources located at minor or synthetic minor facilities. It does not apply to sources located at a major facility or at sources subject to a New Source Performance Standard (NSPS).

1.12. ***Grandfathered Equipment***

Condensate tanks, tank batteries, and loadout equipment and operations located at oil and gas industry sites that were in existence and exempt prior to December 30, 2002 have grandfathered status. Therefore, they do not require a construction permit (CP). Prior to a revision to Reg. 3 made at the end of 2002, condensate tanks had been exempt if they had a capacity of 40,000 gallons (952 barrels [bbl]) or less. Grandfathered status under the 2002 revision applies only to minor source construction permits; it does not apply to Title V Operating Permits (T5OP) or Prevention of Significant Deterioration (PSD) permits or permitting requirements. A source loses its grandfathered status if a qualifying modification is made. In that case, a construction permit would be required if permit de minimis levels would be exceeded.

1.13. ***Individual Permit (IP)***

A permit that is issued through the traditional construction permit mechanism as defined in Reg. 3, Part B. IPs are either CPs or T5OPs. A GP is an alternative to an IP.

1.14. ***Modification to a condensate tank battery***

A condensate tank battery will be considered modified for minor CP purposes if any of the following has occurred (This is not an all-inclusive list. For additional details about the definition of modification, see Reg. 3, Part A, I.B.26):

- New tanks have been installed at the site
- An existing tank was replaced
- A new well was drilled and connected to the battery (E&P site only)
- A well was re-piped (E&P site only)
- A significant change (e.g., replacement of a separator) in the physical components of the tank or the equipment related to the functioning of the tank has occurred
- An existing well was recompleted, refractured, or otherwise stimulated (see Reg. 7, XII.B.10)

The following are not considered modifications for CP purposes (i.e., these changes would not cause a battery to lose its grandfathered status). For tanks registered under the GP, these changes may be called modifications per the provisions of the AOS:

- Removal of a well from a tank battery. In this event, an Air Pollutant Emission Notice (APEN) is not required, but a letter of notification should be sent to the Division.
- Addition of a control device. If the source has an IP, the tank permit must include the control device in order to take credit for the potential-to-emit (PTE) achieved by reducing emissions with the control device. If a control device is included in an IP, it may not be removed or rendered inoperable without a permit modification.

1.15. ***Modification to condensate loadout equipment***

Condensate loadout equipment will be considered modified if any of the following has occurred (this is not an all-inclusive list):

- Significant change in the equipment (e.g., bottom fill vs. top fill)
- A change in throughput would be considered a modification if the source has a permit and the throughput limit on the permit is exceeded. An increase in throughput for a grandfathered source would not trigger the need for a CP, unless the increased throughput is a result of a modification to the grandfathered source.

1.16. ***Non-E&P, Midstream, or Downstream Equipment***

Midstream and downstream equipment is located between the E&P site custody transfer up to and including transmission and storage. Non-E&P equipment may be midstream or downstream. E&P equipment may be co-located with non-E&P equipment.

1.17. ***Oil and Gas Industry***

Includes E&P, non-E&P, midstream, and downstream equipment

1.18. ***Recompletion***

Entering another subsurface zone from the same well.

1.19. ***Refracturing***

Restimulating the present producing zone of a well to increase production, using fracture techniques such as hydraulic, acid, or gravel.

1.20. ***Re-piping a well***

Connecting an existing well to a different tank battery.

1.21. ***Sales oil***

Oil, crude oil, or condensate sold to a third party and transported from the E&P facility.

1.22. ***Site or facility***

Any stationary source or group of stationary sources that have the same two digit standard industrial code, are located on one or more contiguous or adjacent properties, and are under common control of the same person (or persons under common control). (Reg. 3, Part A, I.B.41)

This definition will be used in determining both minor and major New Source Review (NSR) applicability determinations. In interpreting this definition, the Division will rely on available Environmental Protection Agency (EPA) guidance and past EPA and Division determinations. Based on Division experience, many of these decisions will be made on a case-by-case basis.

1.23. ***Slop Tank***

A tank located at a non-E&P facility that is used to store condensate, intercooler condensates, or miscellaneous lubricant oil drainage products. In general, it is used to store drainage materials from various tanks. The Division considers a slop tank to be a non-E&P condensate tank.

1.24. ***Tank Battery***

A single tank or a group of tanks with the liquid streams manifolded (connected) together and used for the storage of condensate. Tanks whose vapor streams are connected solely for the purpose of routing emissions to a control device may still be considered separate tank batteries. If a company chooses, co-located batteries meeting the provisions of Reg. 3, Part A, Section II.B.4. may be grouped and reported on a single APEN. For the purpose of this guidance document, the terms tank, tanks, or battery all refer to a tank battery.

1.25. ***Well Pad***

The area that is directly disturbed during the drilling and subsequent operation of a well or areas affected by production facilities directly associated with a well. Well sites from which multiple wells may be drilled to various bottomhole locations shall be considered a single well pad.

2. GRANDFATHERING QUESTIONS AND ANSWERS (Q&A)

2.1. ***What equipment is considered grandfathered under the December 30, 2002 Reg. 3 revisions?***

Condensate tanks, tank batteries, and loadout equipment/operations located at oil and gas industry sites that were in existence prior to December 30, 2002 and were exempt until the Reg. 3 exemptions for condensate tanks with a capacity of 40,000 gallons or less and condensate truck loadout were removed are considered grandfathered from the minor source permitting requirements. Once a modification occurs, a permit is required if the permit de minimis levels defined in Reg. No 3, Part B, Section II.D are exceeded.

2.2. ***What does our policy on grandfathering mean as it applies to major Federal programs?***

Grandfathered status under the 2002 revisions to Reg. 3 applies only to minor source construction permits; it does not apply to T5OP or PSD permits or permitting requirements. Grandfathering does not apply to any facility whose condensate tank emissions: put an existing facility over the PSD level for a new source; would act as a major modification (over the significance threshold) at a PSD facility; would trigger T5OP, or; if the emissions have (or could/should have been) been used in a PSD netting analysis.

A source can be grandfathered from the requirement to obtain a PSD permit if it was constructed prior to the applicable PSD date and has not undergone any qualifying modifications since then that would trigger PSD review. In the case of PSD, a case-by-case analysis would have to be conducted.

Even if a facility has or needs a T5OP or PSD permit, the condensate tanks might still be grandfathered from the requirement to obtain a minor source construction permit, although they would need to revise/obtain a T5OP.

2.3. ***Can I replace a condensate tank with the same size or smaller tank at a grandfathered facility and retain my grandfathered status?***

No. Replacing a tank is considered a modification.

2.4. ***If there a catastrophic failure of a condensate tank (either grandfathered or permitted), can I replace the tank immediately without first obtaining a minor source construction permit?***

The Division will resolve these situations on a case-by-case basis and may use enforcement discretion in such emergency situations. Tanks registered under the general GP may use the AOS provision for tank replacements without providing notice to the Division prior to the modification.

3. AIR POLLUTANT EMISSION NOTICE (APEN) Q&A

3.1. ***When must APENs be submitted or revised for E&P condensate tanks?***

APENs should be submitted for tanks that have volatile organic compound (VOC) emissions that are greater than threshold levels (1 tons per year [tpy] in

nonattainment areas; 2 tpy in attainment areas), unless the source is exempt under Reg. 3, Part A, II.D. The E&P condensate tank exemption for tanks that have a production rate of 730 bbl/yr or less was removed January 30, 2009. APENs should be revised for circumstances as described in Reg. 3, Part A, II.C or as described in the GP. The following are some circumstances under which APENs should be revised:

- For new batteries, within 30 days after the report of first production is filed, but no later than ninety days following the first day of production. (see Reg. 3, Part A, Section II.D.1.lll.)
- When a significant change in annual actual emission occurs, as defined in Reg. 3, Part A, Section II.C.2. APENs filed for this reason should be submitted by April 30th of the year following the change.
- When there is a change in the owner or operator of any tank.
- Prior to installing, replacing (with a different type), or removing control equipment. The following two exceptions apply to this requirement.
  - Tank batteries subject to the requirements in Reg. 7, Section XII may file a revised APEN indicating control equipment changes annually as specified in Reg. 3, Part A, Section II.C.3.d. However, if a battery has a control listed in an IP, the permit must be modified (and thus an APEN submitted) prior to implementing the change.
  - Tank batteries registered under the GP may file a revised APEN indicating control equipment changes annually, as specified in the AOS.
- When a grandfathered tank is modified. Grandfathered tanks lose their grandfathered status when a modification occurs.
- When an individually permitted tank modifies a permit limitation or equipment description.
- No later than thirty days before the five-year term of the current APEN expires.

3.2. ***What time period should be used to calculate actual emissions for an APEN?***

APENs are used to report actual emissions for the previous calendar year. Therefore, actual reporting levels should represent the best estimate of prior calendar year throughput and emissions. For APENs submitted during the first year of operation, projected annual condensate production and associated emissions are acceptable. In subsequent years, actual data from the previous calendar year shall be used.

3.3. ***What time period should be used to calculate requested emissions for an APEN?***

Requested condensate production and associated emission values are used to determine source permit limits. Therefore, these values should represent the best estimate of projected future maximum throughput and emissions. Requested values are not applicable for tank batteries registering under the GP because permit limits are set by GP conditions.

3.4. ***What must be submitted with an APEN?***

An APEN must be completed per the instructions provided with the form. If a site-specific emission factor is used to calculate emissions, documentation supporting the emission factor shall be submitted with the APEN.

The filing fee of $152.90 is required for each APEN submitted.

3.5. ***If my company has multiple tank APEN updates to submit, may we file electronically?***

Yes. The Division has a standard Excel template that can be used for submittal of multiple tank APEN updates containing more than 25 APENs. A cover letter with original signature must accompany the submittal. However, electronic APEN submittals may not be used if the operator is requesting a new or modified permit.

3.6. ***Which condensate storage tank related APEN exemptions were removed as part of the Reg. 3 revision, effective January 30, 2009?***

The exemption from Reg. 3, Part A, II.D.1.eeee and it's subparts were removed. II.D.1.eeee stated: "Any condensate storage tank with a production rate of 730 barrels per year or less or condensate storage tanks that are manifold together with a production of 730 barrels per year or less that are owned and/or operated by the same person, and are located at exploration and production sites."

4. EMISSION FACTORS AND SITE SPECIFIC SAMPLING Q&A

4.1. ***What are the state approved emission factors for E&P condensate tanks?***

Facility County	E&P Condensate Tank State Emission Factors* (lb/bbl)		
	VOC	Benzene	n-Hexane
Adams, Arapahoe, Boulder, Broomfield, Crowley, Denver, Douglas, El Paso, Elbert, Jefferson, Larimer, Logan, Morgan, Phillips, Pueblo, Sedgwick, Washington, Weld, & Yuma	13.7	0.024	0.210
Garfield, Mesa, Rio Blanco, & Moffat	10.0	0.048	0.140
Cheyenne, Kiowa, Kit Carson & Lincoln	3.0	0.004	0.070
Remainder of Colorado	11.8	0.034	0.185

* These state emission factors may be revised in the future, pending new data and analysis results.

4.2. ***What type of emissions are included in the E&P condensate tank state emission factors?***

State emission factors for E&P condensate tanks include flash, working, and breathing losses.

4.3. ***Are there limits as to when E&P condensate tank state emission factors may be used?***

E&P condensate tank state emission factors may be used for E&P tank batteries that have actual uncontrolled VOC emissions less than 80 tpy when calculated using state emission factors.

State emission factors may not be used for non-E&P tank batteries.

4.4. ***When are site-specific emission factors required for tank batteries?***

Site-specific emission factors must be developed and used as the basis to estimate emissions in the following circumstances or locations:

- Uncontrolled VOC emissions from an E&P tank batteries are greater than or equal to 80 tpy when calculated using state emission factors.
- Non-E&P, midstream, and downstream condensate tanks

Site-specific emission factors may be developed and used on a voluntary basis for any E&P tank battery.

Site-specific emission factors may only be applied at the tank battery for which they were developed.

4.5. ***How are site-specific emission factors developed?***

For operations where the condensate or crude oil may exhibit "flashing" emissions site-specific emission factors for condensate tanks are developed by sampling low pressure oil (pre "flash") and sales oil and then using results from the sample analysis as inputs to a software model. Results of all sampling and analysis must be submitted to the Division. If more than one sample is taken from a battery during the sample period, an average will be used for permit and APEN emission reporting purposes.

Samples of low pressure oil, which is the pre-flash pressurized oil obtained from the separator outlet to the sales tank, must be taken during normal operating conditions. If added, xylene and/or methanol injections that occur upstream of the tank battery must be captured by the sampling. Reid Vapor Pressure (RVP) and API gravity may be determined by either sampling sales oil or via calculations. API gravity may be obtained from averaging sales receipt values or calculated with Equation 1:

(Equation 1) $\text{API Gravity} = (141.5 \div \text{specific gravity at } 60\ ^\circ\text{F}) - 131.5$

Sales oil RVP must either be measured from a sample taken at the same time as the low pressure oil sample or calculated with Equation 2:

(Equation 2) RVP = (0.179 × sales oil API Gravity) – 1.699

The following pressurized liquid sampling and analytical methods are approved by the Division (Analysis by other methods must be approved by the Division prior to submittal):

Sampling Method

- Gas Processors Association (GPA) Method 2174 piston cylinder sample container (or a method derived from this method)

Analytical Methods

- American Society of Testing and Methods (ASTM) Method D6730
- GPA Method 2186 and 2186M
- GPA Method 2103 and 2103M

Flash, working, and breathing loss emissions must be calculated using an approved software model. The following models are currently approved for developing site-specific emissions factors for condensate storage tanks:

- American Petroleum Institute (API) E&P TANK version 2.0 or later
- Commercial process simulators including: WinSim, Aspen HYSYS, ProSim, VMGSim and ProMax

While E&P TANK version 2.0 is able to calculate flash, as well as, working and breathing losses, some commercial process simulators will only calculate flash and not working and breathing losses. In these cases, EPA TANKS 4.0 or later must be used to calculate working and breathing loss emissions in conjunction with the process simulator used to calculate flash emissions. The results of both model runs should be combined to represent a single emissions factor. Use of modeling programs other than those listed above must be Division approved prior to submittal.

4.5.1 ***May the flash gas liberation analysis method be used to estimate flashing emissions instead of a process simulator?***

Yes, the flash liberation analysis method may be used to estimate the flash gas component of emissions from a condensate storage tank. Please see separate Division guidance dedicated to the use of this method. Please be aware that working and breathing losses must still be calculated and combined with the results from the flash liberation analysis method.

4.6. ***How long can a site-specific emission factor be used?***

Site-specific emission factors can be used for the following length of time:

- For tank batteries where modeled actual uncontrolled VOC emissions (i.e., actual uncontrolled emissions as calculated with a site-specific emission factor) are less than 80 tpy, the site-specific emission factor may be used indefinitely.

- For tank batteries where modeled actual uncontrolled VOC emissions are equal to or greater than 80 tpy, a site-specific emission factor must be developed every 2 years that emissions remain in this range.
- For condensate tanks at Title V facilities, a site-specific emission factor must be developed annually, regardless of the tank battery emissions. This requirement is for Title V periodic monitoring purposes. The T5OP may contain additional requirements about frequency of modeling and calculating emissions.

4.7. ***What information is required to document a site-specific emission factor for condensate tanks?***

The following information must be submitted to the Division prior to using a site-specific emission factor for condensate tanks:

- Complete composition analytical results of the pre-flash low pressure oil sample
- Sales oil RVP analysis or estimate
- Documentation of the sales oil API gravity used in the model
- Emission model results; include site-specific emission factor(s) and input/output reports

In addition, the Division requests the following information be submitted if practicably available:

- Ambient temperature and status of wells (on/off) at time of sample collection
- Geologic producing formation of wells serviced by the tank battery
- Age of the wells (date of first production)

If the flash gas liberation analysis method is used to develop site-specific emissions factors for condensate tanks, please reference separate Division guidance for the required documentation.

4.8. ***What heat content and gas-to-oil (GOR) ratio should be used when estimating combustion emissions (e.g. NOx, CO, etc.) from emissions control devices such as enclosed combustors or flares equipped on condensate storage tanks?***

If a site specific emissions factor was developed for the condensate storage tank, then the heating value for the tank waste gas stream, as calculated by the process simulation or lab analysis, should be used. The gas-to-oil ratio represents the ratio of the volume of waste gas emitted from the storage tank(s) per barrel of condensate produced (SCF/bbl). If a site-specific emission factor is being utilized for the condensate storage tank emissions, then the volume of waste gas per barrel of oil produced should be based on the volume of waste gas predicted by the model or lab analysis. This waste gas volume is then divided by the number of barrels used in the model run. If no modeled or monitored data is available the operator should use the following default values:

Facility County	Heat Content* (Btu/SCF)	Gas-to-Oil Ratio* (SCF/barrel)
Garfield, Mesa, Rio Blanco, & Moffat	1,739	152
Remainder of Colorado	2,255	244

* Note that these default values are based on a review of the modeling performed for the DJ and Piceance basin condensate state default emission factors. These heat content and GOR values are based on well production facilities that exhibit working, breathing and flash emissions. Therefore, these values may be conservative for stable oil tanks but should be used if no other more representative data is available.

5. EMISSION CALCULATIONS Q&A

5.1. ***How are uncontrolled and controlled emissions calculated?***

Uncontrolled and controlled actual and requested emissions must be calculated to complete an APEN. When a control device is only operational part of the year, emissions for that year are calculated by adding the uncontrolled and controlled portions. These emissions are entered in the "controlled" column of the APEN. Equations 3, 4, and 5 may be used to calculate actual or requested emissions, depending on whether the condensate throughput value represents actual or requested conditions. Emissions calculated with these equations are in units of lbs VOC per year. The same methodology should be used to calculate hazardous air pollutant (HAP) emissions.

(Equation 3) $$\text{Uncontrolled Emissions} = T \times EF$$

(Equation 4) $$\text{Controlled Emissions}_{\text{(controlled entire year)}} = T_c \times EF \times (1-C)$$

(Equation 5) $$\text{Controlled Emissions}_{\text{(controlled partial year)}} = [(T-T_c) \times EF] + [T_c \times EF \times (1-C)]$$

Where:

T = Total annual condensate throughput, actual or requested (bbl/year)

EF = State or site-specific emission factor (lb VOC/bbl condensate) (See Section 4)

T_c = Portion of condensate throughput occurring while controls were installed and operational, actual or requested (bbl/year)

C = Control efficiency (fraction between 0 and 1; e.g., 0.95 represents 95 percent)

5.2. ***How is potential to emit (PTE) calculated?***

Calculate PTE as described in Equation 3 for uncontrolled emissions, except use a condensate throughput value (T) based on the maximum annual throughput for the tank battery as follows in Equation 6:

(Equation 6) $\text{PTE Emissions} = T_{PTE} \times 1.2 \times EF$

Where:

T_{PTE} = Condensate throughput, maximum (bbl/year) where the maximum throughput is the greater of either the highest rolling 12-month production total during the last five years or the production forecast for the following 12-month period. Production forecasts may use a default decline factor of 60 percent for the first 12 months of operation to estimate maximum annual throughput. That is, the production after a year can be estimated to be 40 percent of the original production using a standard decline curve. Higher decline factors may be used if supporting documentation is provided to the Division.

5.3. ***How should emissions be estimated for dual product storage tanks?***

Emissions shall be based on the volume of condensate produced multiplied by the appropriate condensate emissions factor. The produced water fraction shall not be included in the tank emissions.

6. CONSTRUCTION PERMIT Q&A

6.1. ***If one or more tank battery(ies) is connected to a single control device, is the emission source the tank battery(ies) or the control device?***

Tank batteries are considered to be the emission source. If several batteries are connected together solely to vent emissions through a control device, individual batteries may either be considered individual sources or grouped as one source.

6.2. ***Does the Division assign a control efficiency to enclosed flares and/or VRUs?***

The control efficiency accepted by the Division for enclosed flares and VRUs is 95 percent. The Division may approve use of a higher efficiency if appropriate and if supporting data are provided.

6.3. ***Does the Division require RACT on condensate tanks?***

Compliance with Reg. 7, XII fulfills Reg. 3, Part B, III.D.2 RACT requirements.

6.4. ***Is self-certification required for E&P condensate tanks?***

Self-certification is a process with an enforceable signature by a responsible official stating that a facility is in compliance with its permit. Generally, self-certification is not required for true minor source E&P condensate tanks. Construction permits for these sources are typically issued as Final Approval. The rationale for this decision is that these tanks have already been in operation, and the APEN signature provides the self-certification. Tank batteries not covered under the GP that include emission controls or are synthetic minor sources may still require an Initial Approval permit and self-certification.

7. OIL AND GAS INDUSTRY CONDENSATE TANK GP Q & A

7.1. ***What sources qualify for coverage under the oil and gas industry condensate tank battery GP?***

Sources that comply with all terms and conditions in the GP qualify to be covered by the GP. General applicability includes:

- The facility is an oil & gas industry condensate storage facility
- The equipment is one or more storage tanks with a design capacity equal to or less than 10,000 bbls
- The facility is a true minor or synthetic minor source for T5OP or NSR.
- Combined actual controlled VOC emissions are equal to or less than 39 tpy, on a rolling 12 month basis for synthetic minor facilities or a calendar year basis for true minor facilities.
- Sources located at a major facility or sources subject to an NSPS standard are not qualified to operate under the GP.

7.2. ***May a battery currently registered as a minor source under the oil and gas industry condensate tank battery GP remain eligible for coverage if a future modification causes uncontrolled emissions to exceed 100 tpy?***

GP coverage is available to sources that are either true minor or synthetic minor. A battery approved for coverage under the GP must have actual controlled VOC emissions equal to or less than 39 tpy, although its uncontrolled emissions may exceed 100 tpy. Therefore, if a source's uncontrolled emissions increase such that they exceed 100 tpy, it will remain eligible to continue coverage under the GP independent of subsequent modifications provided that the source remains compliant with all terms and conditions of the GP. The source's classification would change from true minor to synthetic minor.

7.3. ***What is the process for permitting an oil and gas industry condensate tank under the GP?***

1. A. E&P condensate tank batteries: Submit a completed E&P Condensate Tank APEN, form APCD-205. Place a check mark in the box labeled "Registered for coverage under general permit no. GP01" under the "Reason for APEN submittal." Include the APEN filing fee of $152.90 for each APEN submitted and the GP registration fees of $250 per APEN. Annual emission fees will need to be paid in subsequent years.

   B. Non E&P, midstream, or downstream condensate tank batteries: Submit a completed Midstream Condensate Tank Battery APEN, Form APCD-204. Place a check mark in the box labeled "Request for Coverage under General Permit number GP01" under Section 02-Requested Action. Include APEN filing fee of $152.90 for each APEN submitted and the GP01 registration fee of $250 per APEN.

2. The Division will review the APEN and determine if the tank qualifies for GP registration.

3. If the source qualifies for the GP, an approval letter authorizing GP coverage will be sent to the applicant. If all applicable fees were not paid at the time of submittal, an invoice will be sent. Approval will not be granted until fees are paid in full. If the source does not qualify for the GP, the GP registration fee will be refunded.

4. If the tank is currently permitted under an IP and the source is requesting a change to GP coverage, the Division will cancel the existing IP upon GP registration approval.

7.4. ***May facilities continue to utilize IPs rather than the GP for condensate tanks?***

Yes, condensate tanks may be covered under IPs. The GP is a voluntary permitting option for qualified sources. The same APEN form is used for both situations. The permittee must check the correct box on the APEN indicating which type permit they are requesting.

7.5. ***What is the difference between a GP and an IP for condensate tanks?***

General Permit	Individual permit
Flexibility	
Controls may be installed, replaced and removed as needed to meet the emission limit.	Must specify a control device if credit is claimed for emissions control and must be modified if that control device is changed.
Contains AOS provision to allow modifications without prior notice.	Must be modified prior to making changes.
Conditions	
No unique permit number. Batteries are uniquely identified with the AIRs ID.	A unique permit number is assigned.
Equipment descriptions and conditions are standard for every condensate tank registered.	Contains unique conditions and descriptions of the specific equipment to be covered.
The GP does not contain a production limit, only an emissions limit.	Contains an annual throughput limit (set at the level requested on the APEN).
Permit fees	
The GP registration fee is a one-time fee that does not require repayment each time a source is modified.	Permit fees based on actual processing time must be paid every time a permit is modified and may vary widely.

8. TITLE V OPERATING PERMIT VS. CONSTRUCTION PERMIT Q&A

8.1. ***Does an existing permitted T5OP source need to obtain a CP for condensate tank emissions that had been exempt until the 2002 Reg. 3 revision?***

If the tank is grandfathered, submit an application for a T5OP modification. The tank will still retain its grandfathered status regarding CPs.

If the tank is not grandfathered or loses its status (has become subject to Reg. 3, Part B construction permitting requirements), either obtain a CP and later incorporate it into the T5OP permit, or submit an application to modify the T5OP to include the condensate emissions in the permit.

9. HOUSE BILL 07-1341

9.1. ***What is House Bill (HB) 07-1341?***

HB 07-1341 is a legislative action to "protect public health, safety, and welfare, including the environment and wildlife resources, from the impacts resulting from the dramatic increase in oil and gas development." Section 805.b(2)A regulates condensate tanks. HB 07-1341 can be found at the Colorado Oil and Gas Conservation Commission (COGCC) website: http://cogcc.state.co.us/.

9.2. ***What does Section 805.b(2)A require?***

Section 805.b(2)A requires that all condensate tanks with a potential to emit 5 tpy or more of VOCs that are located in Garfield, Mesa, and Rio Blanco Counties and within ¼ mile of an affected building (see complete list of building types in HB 07-1341) shall utilize a control device capable of achieving 95 percent control efficiency of VOC and shall hold a valid permit from the Division.

9.3. ***How is PTE defined in the context of Section 805.b(2)?***

For the purposes of HB 07-1341 Section 805.b(2), the term PTE is considered the actual uncontrolled emissions as calculated based on the actual throughput for existing sources and the actual uncontrolled emissions as calculated based on the projected throughput for new sources. Additional guidance is available in Appendix B of "CDPHE Consultation Guidance for the COGCC Amended Rules."

Appendix A Example Emission Calculations

In this example emission calculation, the actual condensate throughput is 5,000 bbl/year and the throughput while controls are operational is 3,000 bbl. Annual uncontrolled emissions for the year in this example would be 34.3 tpy VOC (13.7 while uncontrolled + 20.6 while controlled). Considering that the tank battery was only controlled beginning June 1, annual actual controlled emissions would be 14.7 tpy VOC (13.7 while uncontrolled+ 1 while controlled). The VOC state emissions factor of 13.7 lb VOC/bbl was used, which indicates the tank battery in this example is located in one of the counties listed in the Section 4.1 table associated with this VOC emission factor. Benzene and n-hexane emissions would be calculated in the same manner using appropriate state emission factors, which are also shown in the Section 4.1 table.

Date	Controlled? If Yes, efficiency?	Condensate Throughput	Actual Emissions Uncontrolled	Actual Emissions Controlled
Jan 1 – June 1	No	2,000 bbl	2,000 bbl × 13.7 lb VOC/bbl = 27,400 lb VOC = 13.7 tons VOC	Not applicable
June 1- Dec 31	Yes; 95 percent	3,000 bbl	3,000 bbl × 13.7 lb VOC/bbl = 1,100 lb VOC = 20.6 tons VOC	20.6 ton VOC × (1-.95) = 1.0 ton VOC