Colorado Department of Public Health and Environment
Air Pollution Control Division

Guidance Document – Form APCD-207

Produced Water Storage Tank- Air Pollutant Emissions Notice (APEN)

Version Date: July 29, 2014

The following guidance document is intended to provide further detail on completing the Air Pollutant Emissions Notice (APEN). Please include the permit number and AIRS ID of the reported equipment if the Air Pollution Control Division (APCD) has previously assigned these numbers. Otherwise, please leave these spaces at the top of the form blank.

The APEN submitted is valid for five (5) years from the date it is received by the APCD. An APEN update must be submitted to the APCD no later than 30 days before this 5-year term expires.

An applicant may group emission points on a single APEN according to Regulation No. 3, Part A, II.B.4. *Guidance on emissions source grouping may be found online at:* https://www.colorado.gov/pacific/cdphe/permitting-guidance-memos in Memo 95-13. See guidance contained in PS Memo 14-03 for specific storage tank grouping limitations when registering operations using GP08.

APEN Filing Fee Requirements

The applicant must submit a $152.90 filing fee with each APEN submitted for a tank located at a non-E&P, midstream or downstream location. The application will not be processed without an APEN filing fee. A modified fee structure for E&P produced water storage tanks allows for up to five (5) individual APENs to be submitted simultaneously for a single filing fee of $152.90. Please note, filing less than five E&P produced water storage tanks APENs does not result in the fee being prorated. An example APEN fee table for E&P produced water storage tanks is provided below:

APEN Fee Structure for E&P Storage Vessels	
# of APENs Submitted	**Fee ($)**
1	152.90
2	152.90
3	152.90
4	152.90
5	152.90
6	305.80
7	305.80

In addition to the APEN Filing fee, submit a $250 general permit registration fee for each emissions point for which you request coverage under a General Permit.

Section 01 - Administration Information

This section contains general information for the company.
NAICS codes: can be found online at http://www.naics.com/search/
SIC codes: can be found online at- http://www.osha.gov/pls/imis/sicsearch.html

Section 02 - Requested Action

Guidance on Revised APENs may be found online at: https://www.colorado.gov/pacific/cdphe/permitting-guidance-memos in PS Memo 02-01.

Request for NEW INDIVIDUAL permit: Check this box if reported equipment has not been assigned a permit number and you are applying for a new individual permit.

Request for coverage under GENERAL PERMIT: Check this box if you are applying for coverage: under either General Permits: GP05 or GP08

Please note the GP05 contains a federally enforceable limit of 10 tons VOC per year for all emissions points at the facility registered for coverage under GP05. This limit will apply to your facility potential to emit (PTE) and implications should be considered before applying to use the general permit.

Please note the GP08 contains a federally enforceable limit of 5.9 tons VOC per year per storage tank registered for coverage under GP08. This limit will apply to your facility potential to emit (PTE) and implications should be considered before applying to use the general permit. For more information on GP08 conditions, please review PS MEMO 14-03

Request MODIFICATION to existing INDIVIDUAL permit: Check this box if reported equipment already has an individual permit issued and you would like to modify the permit. Specify all the modifications you are requesting in an attached cover letter.

APEN Submittal for Permit Exempt/Grandfathered source: Check this box if the source qualifies for a permit exemption or is eligible to be grandfathered from permit requirements and you are requesting an APEN Required/Permit Exempt or Grandfather status letter. Please describe the exemption in the *Additional Information & Notes* section at the bottom of Section 2.

APEN Submittal for update only: Check this box to update your APEN without any permit modifications. If you submit an APEN to update your actual calendar year emissions, this will also update the 5-year APEN term. Please review your previously submitted APEN and permit to verify that no changes have occurred, that would require a permit modification, prior to submittal of an APEN update.

Other than the 5-year term expiration, a revised APEN must be submitted:

- Prior to the installation of new, or replacement of equipment or pollution control equipment.
- Prior to any change in the ownership or operator of a facility or location.
- To change a permit limit or condition.
- Whenever a significant change in annual (calendar year) actual emissions occurs.

A significant change for a criteria pollutant is defined as:

Sources that emit <u>100 tons per year or more</u>: any change of 5% <u>or</u> 50 tons/year or more of actual emissions, whichever is less.

Sources that emit <u>less than 100 tons per year</u>: any change of 5 tons/year or more of actual emissions, except for sources of volatile organic compounds and nitrogen oxides in ozone nonattainment areas which must report any change of 1 ton/year <u>or</u> 5% of actual emissions, whichever is greater.

A significant change for Non-Criteria Reportable Air Pollutants (See Regulation 3, Part A, Appendix A) is defined as:

Any increase of 50% <u>or</u> 5 tons/year of actual emissions, whichever is less.

***Please Note:* For an APEN to be considered complete, all appropriate fields for current operating and company data must be filled out. The application will not be accepted if all fields are not completed.**

Section 03 - General Information

Provide overall source schedule, times, and dates of operation and a general description of equipment used, and the purpose of the equipment.

Answer all questions listed in the general information section as they pertain to the source

Please note if your facility is located in a nonattainment area for any *National Ambient Air Quality Standard* (NAAQS) criteria pollutant (Nitrogen Oxide, Sulfur Dioxide, Ozone, Volatile Organic Compounds, PM_{10}, $PM_{2.5}$, TSP, Carbon Monoxide, Lead). The following website may be used to map the location of your emissions source and determine if it falls within the boundary of a nonattainment area: http://www.colorado.gov/airquality/ss_map_wm.aspx

Section 04 – Storage Tank(s) Information

Requested Permit Limit: List a condensate production volume you desire to establish as a permit limitation if choosing to permit your storage tank through an individual permit. If registering for a general permit, leave this field blank.

Actual: List actual annual produced water production volume for the most recent calendar year. If registering for coverage under a general permit GP05 or GP08 and this is a new source with less than 12 months of operational data, list the projected (including decline) production volume for the first 12 months of operation.

Actual while controls operational: List the actual annual production volume that occurred while emissions controls were operational on the storage tank. This value may be equal to or less than the "Actual" volume.

Tank Design: Check the box that describes the structural design of the storage tank.

Storage Tank ID: Please indicate how you identify each storage tank (i.e. series of liquid manifold storage vessels)

# of Liquid Manifold Tanks Storage Vessels in Storage Tank: List the specific number of individual storage vessels that are liquid manifold to create the storage tank. Please see PS MEMO 14-03 for definitions of storage vessels and storage tanks.

Installation Date of most recent storage vessel in storage tank: List the month and year of the most recent storage vessel installation date.

Date of first production: List the date of first production as reported to the Colorado Oil and Gas Conservation Commission (COGCC) for the first well produced into the associated storage tank.

Wells Serviced by this storage tank or tank battery:
List all wells from which this storage tank(s) receives condensate. Provide the well name and API number as reported to the COGCC. Check "Newly Reported Well" if this well has not previously been reported for this storage tank or tank battery.

Section 05 – Stack Information (Midstream sites only)

Provided this information if a combustion device is used to control the storage tank emissions. If your equipment contains multiple stacks or emission release points, you must submit a separate sheet with relevant information.

Operator Stack ID No.: The company's in-house identification number for a stack, if any.

Base Elevation (feet): Elevation of the base of the stack or emission point.

Discharge Height Above Ground Level: Vertical distance in feet from ground level to emission outlet level.

Temperature: Exhaust stream exit temperatures under normal operating conditions, to nearest 1oF.

Flow Rate: Actual cubic feet per minute (ACFM) at normal operating temperature and pressure, to nearest 1 ACFM.

Velocity: To the nearest 0.1 ft./sec., obtained by dividing Flow Rate by area of exit.

Moisture: Percent by weight of exhaust gases.

Section 06 – Stack (Source, if no combustion) Location

If no combustion device is used to control emissions, list location information for the storage tank(s).

Horizontal Datum (NAD27, NAD83, WGS84): The horizontal geodetic datum of the source location coordinates. One of the following datum must be referenced: NAD27, NAD83, WGS84

Latitude/Longitude ***OR*** UTM description: *provide one or the other.* These are coordinate systems and a means for identifying a point on the earth on a planimetric map. These can be found using Internet tools such as Google Earth or obtained from a georeferenced plot plan of the facility. UTM descriptions will include a zone number.

Method of Collection for Location Data: Identify how the Latitude/Longitude or UTM coordinates were obtained. Methods include: map (identify map name or type), GPS, GoogleEarth, etc.

Section 07 – Control Device Information

Select the appropriate control device operated by the source, if applicable. Supply the additional information requested under the selected control device. Provide supporting documentation for control device utilized in process.

Section 08 – Gas/Liquids Separation Technology Information (E&P Sites Only)

The information provided in this section is intended to support the Division's understanding of the separation process which occurs between the well head and the final dump of hydrocarbon liquids to the storage tank. Please provide a detailed description of the separation process including the number of stages of separation that occur through the final separator vessel.

Section 09 – Inventory Information & Emission Control Information

Emission Factor: List each specific pollutant's emission factor and appropriate unit (lb/BBL) used to determine actual and requested emissions from the source. PS Memo 14-03 "Oil & Gas Industry Crude Oil, Condensate and Produced Water Atmospheric Storage Tanks". This guidance may be obtained online at https://www.colorado.gov/pacific/cdphe/permitting-guidance-memos

If "flash" emissions will result from the storage tanks and the operator is submitting a site specific emissions factor, be certain to include vent stack test results or laboratory and field data analysis consistent with the guidance contained in PS Memo 14-03.

Actual Calendar Year Emissions: The actual amount of emissions emitted annually. Use the previous calendar year emissions if available or the projected actual annual emissions that will result from a newly reported emissions source. Note the data year (in the box above) that was used to determine these actual emissions.

"Uncontrolled" = calculated emissions prior to taking any credit for reductions due to a control device.

"Controlled" = calculated emissions downstream from any control device. For storage tanks that did not operate a control device during the entire production period, this value will represent the sum total emissions that occurred from both the uncontrolled production and controlled production periods.

Requested Permitted Emissions: This level will be your permit limit (maximum allowed). The uncontrolled and controlled emission levels should correlate to the annual requested condensate throughput and control device efficiency listed in previous sections.

Emission Method or Factor Source: Identify how your emissions were estimated. Example emission factor sources/methods include: HYSIS, Prosim, EPA TANKs 4.0, WATER 9, stack test or state default emissions factors. If emission estimations are based upon methods other than those supplied by the Division, sufficient supporting documentation must be included.

Section 10 – Applicant Certification

Signature, date signed, printed name and title of person legally authorized to supply data must be provided.

Additional guidance can be obtained here:

The Air Pollution Control Division at (303) 692-3150, or at their website-

www.colorado.gov/pacific/cdphe/oil-and-gas-industry-air-permits

The Small Business Assistance Program at (303) 692-3175, (303) 692-3148, or at their website-

www.colorado.gov/cdphe/small-business-assistance-program-sbap