



Guidance Document – Form APCD-206
Amine Sweetening Units
Air Pollutant Emissions Notice (APEN)

Ver. January 22, 2013

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.

The applicant must submit a \$152.90 filing fee with each General APEN submitted. The application will not be processed without an APEN filing fee.

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 in PS Memo 95-13 at: <http://www.colorado.gov/cdphe/psmemos>*

Section 01 - Administration Information

This section contains general information for the company.

NAICS codes: can be found online at- <http://www.naics.com/search.htm>

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 in PS Memo 02-01 at: <http://www.colorado.gov/cdphe/psmemos>

NEW: Check box if source has not been assigned a permit number and you are applying for a new permit.

MODIFICATION: Check box if source already has a permit issued and you would like to modify the permit. Specify all the modifications you are requesting in an attached cover letter.

LIMIT HAP PTE: Check box if your equipment has the potential to emit Hazardous Air Pollutants (HAPs) at Major Source levels (10 ton/yr of any HAP, or 25 ton/yr of any combination of HAPs), and you would like a permit limit to reduce the potential below Major Source levels. Guidance regarding HAP PTE can be found online in *PS Memo 97-01* at: <http://www.colorado.gov/cdphe/psmemos>

APEN UPDATE: 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 verify that no changes have occurred prior to submittal of an APEN update.

Other than the 5 year expiration date, 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:

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

Sources which emit less than 100 tons per year: 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 or 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% or 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.

Provide answers to questions listed in the general information section as they pertain to the source.

Please note if your facility is located in a non-attainment area for any *National Ambient Air Quality Standard* (NAAQS) criteria pollutant (Nitrogen Oxide, Sulfur Dioxide, Ozone, Volatile Organic Compounds, PM₁₀, PM_{2.5}, TSP, Carbon Monoxide, Lead). This website will direct you to those areas that are designated as attainment/non-attainment- <http://www.colorado.gov/cdphe/attainment>

Section 04 – Amine Sweetening Unit Equipment Information

Provide requested information for the amine sweetening process. All appropriate and applicable information pertaining to the process must be provided. Attach a process flow diagram, computer simulation stream reports and representative extended sour gas feed analysis including BTEX, n-Hexane, H₂S and CO₂ and 2,2,4-Trimethylpentane.

Section 05 – Stack Information

For a amine sweetening unit the stack information provided should be for either the reboiler stack (Unless APEN exempt) or the emissions control unit stack if it is a combustion device. If your equipment contains multiple stacks or emission release points, you must submit a separate sheet with relevant information.

Operator Stack ID No.: The 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 1°F.

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.

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

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. Complete the additional information requested under the device selected for control. Closed loop systems, if applicable, should be described in the box that reads: “Describe Any **Other**”. Provide supporting documentation for control device utilized in process.

Section 08 - Emissions Inventory Information & Emission Control Information

Emission Factor: List each specific pollutant’s emission factor and appropriate units. These emissions factors should reflect those used to calculate both actual and requested emissions from the source.

Actual Calendar Year Emissions: The actual amount of emissions emitted annually. Use the previous calendar year emissions if possible. 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.

Requested Permitted Emissions: This level will be your permit limit (maximum allowed). The emission level should correlate to the annual operation, gas processed, and control device efficiency listed in previous sections. If left blank the Division will calculate emission based on information supplied in previous sections.

Emission Method or Factor Source: Identify how your emissions were estimated. Example emission factor sources/methods include: An appropriate commercial process simulator or AMINECalc 1.0. Please note, experience indicates AMINECalc 1.0 significantly underestimates still vent emissions from amine sweetening units. Therefore, the Division discourages the use of this modeling software. If emission estimations are based upon methods other than those supplied by the Division or EPA, sufficient supporting documentation must be included.

Section 09 – 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-

<http://www.colorado.gov/cdphe/apcd>

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

<http://www.colorado.gov/cdphe/SBAP>