



**Guidance Document – Form APCD-201**  
**Reciprocating Internal Combustion Engine**  
**Air Pollutant Emissions Notice (APEN)**

Ver. July 27, 2011

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 APEN submitted. The application will not be processed without an APEN filing fee. In addition to the APEN filing fee, if you are requesting the engine to be registered for coverage under general permit GP02, you must submit a \$1,500 registration fee for each engine registered.

**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. See 2002 memos (Memo 02-01) at:*  
<https://www.colorado.gov/cdphe/permitting-guidance-memos>

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

PORTABLE: Check box if you would like to request a portable permit, which allows equipment to be moved from one site to another. Your equipment can not be considered portable if it remains on one site for more than two (2) years.

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.

GENERAL PERMIT: Check this box if you are requesting the engine being reported on the APEN to be registered for coverage under general permit number GP02. This general permit is only applicable to natural gas fired reciprocating internal combustion engines used at oil and gas facilities that meet applicability requirements contained in the permit.

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.

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- Whenever a significant change in annual (calendar year) actual emissions occurs.

A significant change for a criteria pollutant is defined as:

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.***

AOS REPLACEMENT: Check if the reported engine is a permanent replacement under the alternate operating scenario.

### **Section 03- General Information**

Provide start-up date for existing rice along with hours of operation and general description of equipment purpose. If engine is new provide date it was ordered and date engine construction began onsite if known.

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, PM<sub>10</sub>, PM<sub>2.5</sub>, TSP, Carbon Monoxide, Lead). This website will direct you to those areas that are designated as attainment/non-attainment- <https://www.colorado.gov/cdphe/state-implementation-plans-sips>

### **Section 04 – Engine Information**

Complete requested information as it pertains to the engine and desired function. Provide manufacturer performance and rating sheet if available.

Manufacturer's maximum rated horsepower at sea level is often referred to as name plate horsepower. Site rating horsepower will be the maximum horsepower derated for elevation and fuel.

Specify engine cycle, ignition, combustion and aspiration type by checking the appropriate box.

If the engine is solely used for emergency back-up power generation specify the maximum hours of operation per year the unit will be used.

### **Section 05 – Stack Information**

If your equipment contains multiple stacks or emission release points, you must submit a separate sheet with the 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.

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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.

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 06 – Fuel Consumption Information**

Fuel Type: Type of fuel used in source (e.g. Diesel, Natural Gas, Coal Bed Methane, etc.) with data on each line pertaining to that fuel.

Fuel Use Rate: Source specific usage rate at 100% load (i.e., SCF/hr or gal/hr).

Annual Fuel Consumption: Provide the fuel consumption basis for both actual calendar year and the requested permitted emissions limits.

Actual Level: The actual amount of fuel used annually (e.g. gal/yr, scf/yr, ton/yr). Use the previous calendar year to determine this level if possible. You need to note the “data year” in Section 07 of the APEN.

Annual Requested Permitted Level: This level will be your permit limit (maximum allowed). Specify the units that relate to your request (e.g. tons/yr, scf/yr, gal/yr). This level should be higher than the actual level to allow room for growth. Since the APEN term is 5 years, you may want to request a permit limit that will consider growth over the next five years.

Fuel Heating Value: Provide the fuel heat value(s) for the proposed fuels. For liquid fuels use BTU/GAL. For gaseous fuels use BTU/scf.

Percent by Weight for Sulfur and Ash: Nearest 0.01% (sulfur), 0.1% (ash) contained in fuel. Provided by fuel supplier.

Seasonal Fuel Use: Seasonal share boxes must total 100%.

### **Section 07 - Emissions Inventory Information & Emission Control Information**

Control Device Description: List all air pollution control equipment used for controlling emissions from the source, according to the pollutant it controls (one device may be listed more than once). If two or more controls are used, the FIRST encountered by the exhaust is listed as PRIMARY, and the subsequent devices are SECONDARY.

Control Efficiency: A measure of how efficiently the reported control device will reduce the emissions. Generally, use the control device manufacturer’s control efficiency or a control efficiency established during a stack test.

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

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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, fuel consumption 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: EPA’s AP-42 or Manufacturer’s data. If emission estimations are based upon methods other than those supplied by the Division or EPA, sufficient supporting documentation must be included.

**Section 08 – 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-

<https://www.colorado.gov/cdphe/apen-and-permitting-guidance>

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

<https://www.colorado.gov/cdphe/sbap>