



Spark Ignition Engine APEN Form APCD-201

Air Pollutant Emission Notice (APEN) and Application for Construction Permit

All sections of this APEN and application must be completed for both new and existing facilities, including APEN updates. Incomplete APENs will be rejected and will require re-submittal. *Your APEN will be rejected if it is filled out incorrectly, is missing information, or lacks payment for the filing fee. The re-submittal will require payment for a new filing fee.*

This APEN is to be used for spark ignition (e.g. gas-fired) reciprocating internal combustion engines (RICE). If your engine is a compression ignition engine (e.g. diesel-fired) or your emission unit does not fall into the RICE category, there may be a more specific APEN for your source (e.g. compression ignition engine, mining operations, asphalt plant, crusher/screen, etc.). In addition, the General APEN (Form APCD-200) is available if the specialty APEN options will not satisfy your reporting needs. A list of all available APEN forms can be found on the Air Pollution Control Division (APCD) website.

This emission notice is valid for five (5) years. Submission of a revised APEN is required 30 days prior to expiration of the five-year term, or when a reportable change is made (significant emissions increase, increase production, new equipment, change in fuel type, etc.). See Regulation No. 3, Part A, II.C. for revised APEN requirements.

Permit Number: _____ AIRS ID Number: _____ / _____ / _____
[Leave blank unless APCD has already assigned a permit # and AIRS ID]

Section 1 - Administrative Information

Company Name¹: _____
Site Name: _____
Site Location: _____ Site Location
County: _____
Mailing Address: _____ NAICS or SIC Code: _____
(Include Zip Code) _____
Contact Person: _____
Phone Number: _____
Portable Source Home Base: _____ E-Mail Address²: _____

¹ Use the full, legal company name registered with the Colorado Secretary of State. This is the company name that will appear on all documents issued by the APCD. Any changes will require additional paperwork.

² Permits, exemption letters, and any processing invoices will be issued by the APCD via e-mail to the address provided.

Permit Number: _____ AIRS ID Number: _____ / _____ / _____
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Section 2 - Requested Action

- NEW permit OR newly-reported emission source** (*check one below*)
- STATIONARY source PORTABLE source
- Request coverage under a Construction Permit
- Request coverage under General Permit GP02³ (*Natural Gas Only*)
- If General Permit coverage is requested, the General Permit registration fee of \$2,118.75 must be submitted along with the APEN filing fee.**
- OR -
- MODIFICATION to existing permit** (*check each box below that applies*)
- Change fuel or equipment Change company name⁴ Add point to existing permit
- Change permit limit Transfer of ownership⁵ Other (*describe below*)
- OR -
- APEN submittal for update only** (Note blank APENs will not be accepted)
- ADDITIONAL PERMIT ACTIONS -
- APEN submittal for permit-exempt/grandfathered source**
- Notification of Alternate Operating Scenario (AOS) permanent replacement⁶**

Additional Info & Notes: _____

³ Only one engine may be reported per APEN for GP02 coverage. Coverage under GP02 is voluntary.
⁴ For company name change, a completed Company Name Change Certification Form (Form APCD-106) must be submitted.
⁵ For transfer of ownership, a completed Transfer of Ownership Certification Form (Form APCD-104) must be submitted.
⁶ This does not apply to General Permit GP02, as it does not contain a provision for AOS *permanent* replacements.

Section 3 - General Information

Does this engine have a Company Equipment Identification No. (*e.g. ENG-1, Engine 3, etc.*)? _____

If yes, provide the Company Equipment Identification No.: _____

General description of equipment and purpose: _____

For *existing* sources, operation began on: _____

For *new or reconstructed* sources, the projected start-up date is: _____

Will this equipment be operated in any NAAQS nonattainment area?
(See APCD website for NAAQS nonattainment area boundary map) Yes No

Normal Hours of Source Operation: _____ hours/day _____ days/week _____ weeks/year

Seasonal use percentage: Dec-Feb: _____ Mar-May: _____ June-Aug: _____ Sept-Nov: _____

Permit Number: _____

AIRS ID Number: _____ / _____ / _____

[Leave blank unless APCD has already assigned a permit # and AIRS ID]

Section 4 - Engine Information

Engine Function: Primary and/or Peaking Power Emergency (max. 500 hrs/year) Compression
 Pump Jack Water Pump Other: _____

What is the maximum number of hours this engine will be used for emergency back-up power? _____ hours/year

Engine Make: _____ Engine Model: _____ Serial Number⁷: _____

What is the maximum designed horsepower rating? _____ hp

What is the maximum manufacturer's site-rating? _____ hp _____ kW

What is the engine Brake Specific Fuel Consumption at 100% Load? _____ BTU/hp-hr

Is this APEN reporting an AOS replacement engine? Yes No

If yes, provide the make, model, and serial number of the *old* engine below:

Engine Make: _____ Engine Model: _____ Serial Number: _____

Engine Features:

Cycle Type: 2-Stroke 4-Stroke Combustion: Lean Burn Rich Burn

Aspiration: Natural Turbocharged

Is this engine equipped with an Air/Fuel ratio controller (AFRC)? Yes No

If yes, what type of AFRC is in use? O₂ Sensor (mV) NO_x Sensor (ppm) Other: _____

Is this engine equipped with a Low-NO_x design? Yes No

Engine Dates:

What is the manufactured date of this engine? _____

If the following date information is not available, check this box, and this engine will be considered newly constructed and/or newly relocated into the state of Colorado based on the engine start-up date.

What date was this engine ordered? _____

What is the date this engine was first located to Colorado? _____

What is the date this engine was first placed in service/operation? _____

What is the date this engine commenced construction? _____

What is the date this engine was last reconstructed or modified? _____

⁷ The serial number must be submitted if coverage under GP02 is requested.

Permit Number: _____

AIRS ID Number: _____ / _____ / _____

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Section 5 - Geographical/Stack Information

| |
|---|
| Geographical Coordinates <i>(Latitude/Longitude or UTM)</i> |
| |

| Operator Stack ID No. | Discharge Height Above Ground Level <i>(Feet)</i> | Temp. <i>(°F)</i> | Flow Rate <i>(ACFM)</i> | Velocity <i>(ft/sec)</i> |
|-----------------------|--|----------------------|----------------------------|-----------------------------|
| | | | | |

Indicate the direction of the Stack outlet: *(check one)*

- Upward Downward Upward with obstructing raincap
 Horizontal Other *(describe)*: _____

Indicate the stack opening and size: *(check one)*

- Circular Interior stack diameter *(inches)*: _____
 Square/Rectangle Interior stack diameter *(inches)*: _____ Interior stack depth *(inches)*: _____
 Other *(describe)*: _____

Section 6 - Fuel Data and Throughput Information

| Fuel Use Rate @ 100% Load <i>(SCF/hour)</i> | Actual Annual Fuel Use <i>(MMSCF/year)</i> | Requested Annual Permit Limit ⁸ <i>(MMSCF/year)</i> |
|--|---|---|
| | | |

From what year is the *actual annual amount*? _____

Indicate the type of fuel used⁹:

- Pipeline Natural Gas *(assumed fuel heating value of 1,020 BTU/scf)*
 Field Natural Gas Heating value: _____ BTU/scf
 Propane *(assumed fuel heating value of 2,300 BTU/scf)*
 Landfill Gas Heating Value: _____ BTU/scf
 Other *(describe)*: _____ Heating Value *(give units)*: _____

⁸ Requested values will become permit limitations or will be evaluated for exempt status, as applicable, and should consider future process growth. Requested values are required on all APENs, including APEN updates.

⁹ If fuel heating value is different than the listed assumed value, provide this information in the "Other" field.

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Section 7 - Criteria Pollutant Emissions Information

Attach all emission calculations and emission factor documentation to this APEN form. The APCD website has a *Natural Gas Fired Engines Calculator* available to assist with emission calculations.

Is any emission control equipment or practice used to reduce emissions? Yes No

If yes, describe the control equipment AND state the collection and control efficiencies:

| Pollutant | Control Equipment Description | Collection Efficiency (% of total emissions captured by control equipment) | Control Efficiency (% reduction of captured emissions) |
|-------------------|-------------------------------|---|---|
| TSP (PM) | | | |
| PM ₁₀ | | | |
| PM _{2.5} | | | |
| SO _x | | | |
| NO _x | | | |
| VOC | | | |
| CO | | | |
| Other: | | | |

From what year is the following reported *actual annual emissions data*? _____

Use the following table to report the criteria pollutant emissions from source:

| Pollutant | Emission Factor | | | Actual Annual Emissions | | Requested Annual Permit Emission Limit(s) ⁸ | |
|-------------------|--------------------|-------|----------------------------|------------------------------------|--|--|----------------------------------|
| | Uncontrolled Basis | Units | Source (AP-42, Mfg., etc.) | Uncontrolled Emissions (tons/year) | Controlled Emissions ¹⁰ (tons/year) | Uncontrolled Emissions (tons/year) | Controlled Emissions (tons/year) |
| TSP (PM) | | | | | | | |
| PM ₁₀ | | | | | | | |
| PM _{2.5} | | | | | | | |
| SO _x | | | | | | | |
| NO _x | | | | | | | |
| VOC | | | | | | | |
| CO | | | | | | | |

⁸ Requested values will become permit limitations or will be evaluated for exempt status, as applicable, and should consider future process growth. Requested values are required on all APENs, including APEN updates.

¹⁰ Annual emission fees will be based on actual controlled emissions reported. If source has not yet started operating, provide projected emissions.

Section 8 - Non-Criteria Pollutant Emissions Information

Does the emissions source have any uncontrolled actual emissions of non-criteria pollutants (e.g. HAP - hazardous air pollutant) equal to or greater than 250 lbs/year? Yes No

If yes, use the following table to report the non-criteria pollutant (HAP) emissions from source:

| Chemical Name | Chemical Abstract Service (CAS) Number | Emission Factor | | | Actual Annual Emissions | |
|---------------|--|--------------------|-------|----------------------------|-----------------------------------|---|
| | | Uncontrolled Basis | Units | Source (AP-42, Mfg., etc.) | Uncontrolled Emissions (lbs/year) | Controlled Emissions ¹⁰ (lbs/year) |
| Formaldehyde | 50000 | | | | | |
| Acetaldehyde | 75070 | | | | | |
| Acrolein | 107028 | | | | | |
| Benzene | 71432 | | | | | |
| Other: | | | | | | |

¹⁰ Annual emission fees will be based on actual controlled emissions reported. If source has not yet started operating, provide projected emissions.

Permit Number: _____

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Section 9 - Applicant Certification

I hereby certify that all information contained herein and information submitted with this application is complete, true, and correct. If this is a registration for coverage under General Permit GP02, I further certify that this source is and will be operated in full compliance with each condition of General Permit GP02.

Signature of Legally Authorized Person (not a vendor or consultant) Date

Name (print) Title

Check the appropriate box to request a copy of the:

- Draft permit prior to issuance
- Draft permit prior to public notice

(Checking any of these boxes may result in an increased fee and/or processing time)

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Send this form along with \$216.00 and the General Permit registration fee of \$2,118.75, if applicable, to:

**Colorado Department of Public Health and Environment
Air Pollution Control Division
APCD-SS-B1
4300 Cherry Creek Drive South
Denver, CO 80246-1530**

Make check payable to:

Colorado Department of Public Health and Environment

For more information or assistance call:

**Small Business Assistance Program
(303) 692-3175
OR
(303) 692-3148**

**APCD Main Phone Number
(303) 692-3150**