



Permit Number: \_\_\_\_\_

AIRS ID Number: 081 / 0588 /

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

**Section 2 - Requested Action**

NEW permit OR newly-reported emission source

- OR -

MODIFICATION to existing permit (check each box below that applies)

- Change fuel or equipment       Change company name<sup>3</sup>       Add point to existing permit
- Change permit limit       Transfer of ownership<sup>4</sup>       Other (describe below)

- OR -

APEN submittal for update only (Note blank APENs will not be accepted)

- ADDITIONAL PERMIT ACTIONS -

Limit Hazardous Air Pollutants (HAPs) with a federally-enforceable limit on Potential To Emit (PTE)

Additional Info & Notes: \_\_\_\_\_

<sup>3</sup> For company name change, a completed Company Name Change Certification Form (Form APCD-106) must be submitted.

<sup>4</sup> For transfer of ownership, a completed Transfer of Ownership Certification Form (Form APCD-104) must be submitted.

**Section 3 - General Information**

General description of equipment and purpose: Separator produced gas flaring

Company equipment Identification No. (optional): SEP-01

For existing sources, operation began on: 1/13/2016

For new, modified, or reconstructed sources, the projected start-up date is: \_\_\_\_\_

Check this box if operating hours are 8,760 hours per year; if fewer, fill out the fields below:

Normal Hours of Source Operation:	_____	hours/day	_____	days/week	_____	weeks/year
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Will this equipment be operated in any NAAQS nonattainment area?       Yes       No

Is this equipment located at a stationary source that is considered a Major Source of (HAP) Emissions?       Yes       No

Is this equipment subject to Colorado Regulation No. 7, Section XVII.G?       Yes       No

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**Section 4 - Process Equipment Information**

Gas/Liquid Separator

Well Head Casing

Pneumatic Pump

Make: \_\_\_\_\_ Model: \_\_\_\_\_ Serial #: \_\_\_\_\_ Capacity: \_\_\_\_\_ gal/min

Compressor Rod Packing

Make: \_\_\_\_\_ Model: \_\_\_\_\_ # of Pistons: \_\_\_\_\_ Leak Rate: \_\_\_\_\_ Scf/hr/pist

Blowdown Events

# of Events/year: \_\_\_\_\_ Volume per event: \_\_\_\_\_ MMscf/event

Other

Description: \_\_\_\_\_

If you are requesting uncontrolled VOC emissions greater than 100 tpy for a gas/liquid separator, you must use Gas Venting as a process parameter.

Are requested uncontrolled VOC emissions greater than 100 tpy?  Yes  No

Gas Venting Process Parameters <sup>5</sup> :	Requested:	<u>216</u>	MMSCF/year	Vent Gas Heating Value:	1020-1512.5	BTU/SCF
				Actual:	<u>216</u>	MMSCF/year

-OR-

Liquid Throughput Process Parameters <sup>5</sup> :	Requested:		bbl/year	Actual:		bbl/year

Vented Gas Properties:	Molecular Weight:	<u>22.89</u>
	VOC (Weight %)	<u>25.39</u>
	Benzene (Weight %)	<u>0.01805</u>
	Toluene (Weight %)	<u>0.006027</u>
	Ethylbenzene (Weight %)	<u>0.0001524</u>
	Xylene (Weight %)	<u>0.0008776</u>
	n-Hexane (Weight %)	<u>0.1374</u>
	2,2,4-Trimethylpentane (Weight %)	<u>0.02363</u>

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*6/3/19*

Additional Required Information:

Attach a representative gas analysis (including BTEX & n-Hexane, temperature, and pressure)

Attach a representative pressurized extended liquids analysis (including BTEX & n-Hexane, temperature, and pressure)

<sup>5</sup> Requested values will become permit limitations. Requested limit(s) should consider future process growth.

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**Section 5 - Stack Information**

Geographical Coordinates (Latitude/Longitude or UTM)
40.860331, -107.325012

Operator Stack ID No.	Discharge Height Above Ground Level (Feet)	Temp. (°F)	Flow Rate (ACFM)	Velocity (ft/sec)
FL-1	20	~1000	TBD	TBD

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): \_\_\_\_\_  
 Other (describe): \_\_\_\_\_

**Section 6 - Control Device Information**

Check this box if no emission control equipment or practices are used to reduce emissions, and skip to the next section.

<input type="checkbox"/> VRU:	Pollutants Controlled: _____
	Size: _____ Make/Model: _____
	Requested Control Efficiency: _____ %
	VRU Downtime or Bypassed: _____ %

<input checked="" type="checkbox"/> Combustion Device:	Pollutants Controlled: <b>VOC and HAPs</b>
	Rating: _____ MMBtu/hr
	Type: Enclosed Combustor      Make/Model: <b>TBD</b>
	Requested Control Efficiency: <b>95%</b> %
	Manufacturer Guaranteed Control Efficiency: <b>98%</b> %
	Minimum Temperature: _____ Waste Gas Heat Content: <b>1286</b> Btu/scf <del>1020-1,512.5</del>
Constant Pilot Light: <input type="checkbox"/> Yes <input type="checkbox"/> No      Pilot burner Rating: <b>0.10</b> MMBtu/hr	

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<input type="checkbox"/> Other:	Pollutants Controlled: _____
	Description: _____
	Requested Control Efficiency: _____ %

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**Section 7 - Emissions Inventory Information**

Attach all emissions calculations and emission factor documentation to this APEN form.

If multiple emission control methods were identified in Section 6, the following table can be used to state the overall (or combined) control efficiency (% reduction):

Pollutant	Description of Control Method(s)	Overall Requested Control Efficiency (% reduction in emissions)
PM		
SO <sub>x</sub>		
NO <sub>x</sub>		
CO		
VOC	Flare	95%
HAPs	Flare	95%
Other:		

From what year is the following reported actual annual emissions data? 2018 OOS

Criteria Pollutant Emissions Inventory							
Pollutant	Emission Factor			Actual Annual Emissions		Requested Annual Permit Emission Limit(s) <sup>5</sup>	
	Uncontrolled Basis	Units	Source (AP-42, Mfg., etc.)	Uncontrolled Emissions (tons/year)	Controlled Emissions <sup>6</sup> (tons/year)	Uncontrolled Emissions (tons/year)	Controlled Emissions (tons/year)
PM	0.0075	lb/MMBtu	AP42			1.04	1.04
SO <sub>x</sub>	0.0006	lb/MMBtu	AP42			0.08	0.08
NO <sub>x</sub>	0.068	lb/MMBtu	AP42			9.48	9.48
CO	0.31	lb/MMBtu	AP42			43.2	43.2
VOC	15319.0	lb/MMscf	Mass Balance			1659.8	82.7

Non-Criteria Reportable Pollutant Emissions Inventory						
Chemical Name	Chemical Abstract Service (CAS) Number	Emission Factor			Actual Annual Emissions	
		Uncontrolled Basis	Units	Source (AP-42, Mfg., etc.)	Uncontrolled Emissions (pounds/year)	Controlled Emissions <sup>6</sup> (pounds/year)
Benzene	71432	10.89	lb/mmscf	Mass Balance	2361	118
Toluene	108883	3.636	lb/mmscf	Mass Balance	788	40
Ethylbenzene	100414	0.09195	lb/mmscf	Mass Balance	20	1
Xylene	1330207	0.5294	lb/mmscf	Mass Balance	115	6
n-Hexane	110543	82.91	lb/mmscf	Mass Balance	17967	898
2,2,4-Trimethylpentane	540841	14.25	lb/mmscf	Mass Balance	3089	154
Other:						

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<sup>5</sup> Requested values will become permit limitations. Requested limit(s) should consider future process growth.

<sup>6</sup> Annual emissions fees will be based on actual controlled emissions reported. If source has not yet started operating, leave blank.

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### Section 8 - Applicant Certification

I hereby certify that all information contained herein and information submitted with this application is complete, true, and correct.

Duncan Shepherd 11/2/19  
Signature of Legally Authorized Person (not a vendor or consultant) Date  
**Duncan Shepherd** **President**  
Name (please print) Title

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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)

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.

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Send this form along with \$191.13 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

Or visit the APCD website at:

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