

1. Administrative Summary

Engineer:	Renee Lee		
PA Date:	8/8/2022		
Applicant's Name:	Polar Service Centers		
Facility's Main Function:	Steam blow down of service tanker trucks		
Permit Number:	20AD0890		
AIRS ID:	001/2264/001		
Location:	4850 E. 74th Ave., Commerce City		
Current Project:	Newly reported emission source		
Issuance:	1		
Action Taken:	Initial Approval		

2. Process Summary

Equipment Description:	VOC & HAPs from petroleum product vapors released during blow down/cleaning of service tanker trucks. VOC & HAP emissions controlled by flare. CO, Nox, & SO2 emissions from flare.		
Control Equipment:	Flare	98 % control of	VOC & HAPs
	0.544898043		

3. Emissions Summary:

Pollutant Class	Pollutant	Requested (Permit) Level		Reported Actual 2020 Data Year Emissions	Facility PTE (tpy)	Remarks/Comments
		Uncontrolled (tpy)	Controlled (tpy)	Controlled (tpy)		
Criteria	VOC	598.64	11.97	8.59	2241.06	Synthetic minor
	CO	6.42	6.42	--	6.42	Reportable
	NOx	0.75	0.7483	--	0.75	Reportable
	SO2	0.01	0.01	--	0.01	
	Hydrogen Sulfide	0.00	0.00	0.01	0.00	Reportable
Pollutant Class	Pollutant	Uncontrolled (ppy)	Controlled (ppy)	Controlled (ppy)	Facility PTE (tpy)	Remarks/Comments
HAPs	Toluene	7253.9	145.1	200.6	13.6	Synthetic Minor
	n-Hexane	385835.0	7716.7	187.8	722.2	Synthetic minor
	Xylene	2176.2	43.5	60.2	4.1	
	Ethylbenzene	586.5	11.7	12.1	1.1	
	Benzene	7108.8	142.2	196.6	13.3	Synthetic minor
	Methanol	1202.8	24.1	0.0	2.3	
	Naphthalene	201.3	4.03	0.0	0.4	
Pollutant Class	Pollutant	Uncontrolled (tpy)	Controlled (tpy)	Uncontrolled (tpy)	Facility PTE (tpy)	Remarks/Comments
HAPs	Highest Single HAP	192.9	3.9	0.1	722.2	Synthetic minor
	Total HAPs	202.2	4.0	0.3	756.9	Synthetic minor

4. Regulatory Summary

Source Classification:	PSD:	Minor for CO
	NANSR:	Synthetic minor for VOC
	OP:	Synthetic minor for VOC, Toluene, Hexane, Benzene, & total HAPs
Classification of Modification:	Synthetic minor	
Impact Modeling:	Emissions were sent to the Permit Modeling Unit (PMU) since t.he long term net emissions from the flare are under the Table 1 Colorado Modeling Guideline, Oct. 2021 thresholds but over the short term for NOx. The PMU responded that their unit "does not feel that that source will threaten the NAAQS and therefore does not recommend modeling to demonstrate compliance with the NAAQS." This modeling determination has been saved as part of this PA file in OnBase.	
State And Federal Regulations:		
Regulation Number 1:	This source is subject to the opacity standard requirements of Regulation Number 1	
Regulation Number 2:	This source is subject to the odor requirements of Regulation Number 2	
Regulation Number 3:	This source is subject to the Air Pollutant Emission Notice (APEN) and permit requirements of Regulation Number 3	
Regulation Number 3 Part C:	Applies	
Regulation Number 3 Part D:	Not applicable	
Regulation 7:	Subject to requirements to Control Emissions of Volatile Organic Compounds contained in Reg. 7, Part B, Section III.A.	
NSPS/MACT:	Not applicable	
RACT:	RACT was determined to be the use of a flare to control VOC emissions.	
Stack Testing:	Initial and periodic testing every 5 years is required during blowdown of tanker trucks containing gasoline and propane in order to demonstrate compliance with the VOC, NOx, and CO emissions limits in this permit, and to demonstrate a minimum destruction efficiency of 98% for volatile organic compounds (VOC).	

Additional Requirement:	The presence of the pilot light of the enclosed flare must be monitored daily using one of the following methods: visual inspection, optical sensor, auto-igniter signal, or thermocouple. Records must be maintained by the applicant and made available to the Division for inspection upon request.
Public comment :	Required for synthetic minor source for NANSR.
Additional Specific Comments:	Crude oil vapor will no longer be processed at this facility. Crude oil contains H2S which converts to SO2 during flaring. Any increase in SO2 emissions will require a determination on whether modeling is required from the Permit Modeling Unit.

Tanker Truck Blowdown - Preliminary Analysis - VOC Emissions

Company:	Polar Service Centers	Engineer:	Renee Lee
Location:	4850 E. 74th Ave., Commerce City	Approval:	Initial - Issuance 1
Permit No:	20AD0890	SCC:	40600163
AIRS ID:	001/2264/001	Actual Data Year:	2020
Attainment/Non-Attainment:	Non-attainment	Date PA Completed:	6/21/2021

Quarterly limits:			
40%	20%	10%	30%
17,100,000	8,550,000	4,275,000	12,825,000
-	-	-	-
9,600,000	4,800,000	2,400,000	7,200,000

Hours of Operation:		
Hours/day	9	Requested Hours/yr 2340
Days/week	5	Potential Hours/yr 8760
Weeks/yr	52	

3,630,821.92

-

2,038,356.16

Requested Vapor Throughputs:				Assumed Liquid Throughputs (leftover in tanks):			
Gasoline:		42,750,000	gal/yr total	Gasoline:		9,000	gal/yr total
Diesel:				Diesel:			
Ethanol:				Ethanol:			
Jet Fuel:				Jet Fuel:			
Crude Oil: crude oil vapor will no longer be processed			0 gal/yr	Crude Oil: crude oil vapor will no longer be processed at			0 gal/yr
Propane:		24,000,000	gal/yr	Propane:		4,000	gal/yr

Propane tank trucks/yr:

2000

Propane Tanker volume:

12000 gallons

Actual Vapor Throughputs:				Assumed Liquid Throughputs (leftover in tanks):			
Gasoline:		1,178,000	gal/yr total	Gasoline:		248	gal/yr total
Diesel:				Diesel:			
Ethanol:				Ethanol:			
Jet Fuel:				Jet Fuel:			
Crude Oil: crude oil vapor will no longer be processed		228,000	gal/yr	Crude Oil: crude oil vapor will no longer be processed at		48	gal/yr
Propane:		0	gal/yr	Propane:		12	gal/yr

Propane tank trucks/yr:

6

Propane Tanker volume:

12000 gallons

*Propane and crude oil tankers must be flared empty prior to arriving at the facility in order to assume only 2 gallons of liquid per tanker.

Vapor Properties ¹ :			
Tanker Contents	Vapor Molecular Weight	Vapor Pressure (@ avg. liquid surface temp.)	Daily Avg. Liquid Surface Temp.
	lb/lb-mole	psia	R
Gasoline:	66	8.40	531.67
Diesel:	130	0.01	531.67
Ethanol:	46	1.15	531.67
Jet Fuel:	130	0.39	531.67
oil vapor will no longer be processed	50	10.00	529.67
Propane:	44.1	9.00	531.67

¹Per Table 7.1-2&3 and Equations 1-25&26 of AP-42 Section 7.1 Organic Liquid Storage Tanks (3/2020), Propane vapor pressure = pressure remaining in tanker prior to blowdown, propane molecular weight = liquid molecular weight

Vapor Density in tank ² :	
Gasoline:	0.0972 lb/ft ³
Diesel:	0.0002 lb/ft ³
Ethanol:	0.0092 lb/ft ⁴
Jet Fuel:	0.0088 lb/ft ³
Crude Oil: crude oil vapor will no l	0.0880 lb/ft ³
Propane:	n/a lb/ft ³

²Per equation 1-22 of AP-42 Section 7.1 Organic Liquid Storage Tanks (3/2020)

Liquid Density in tank ³ :	
Gasoline:	6.0000 lb/gal
Diesel:	7.3400 lb/gal
Ethanol:	6.5900 lb/gal
Jet Fuel:	7.0100 lb/gal
Crude Oil: c	7.0100 lb/gal
Propane:	4.1100 lb/gal

³Assume 2 gallons of liquid are left in each trailer

Conversion Factors:	
	0.133681 ft ³ /gal
	2000 lb/ton

Control Device:	
Flare	98 % control efficiency

Requested Uncontrolled VOC Emissions from Steam Blow Down ⁴ :				Requested Controlled VOC Emissions from Steam Blow Down:			
Gasoline:	304.66	tons/yr of VOC	Emissions from worst case fuel:	Gasoline:	6.09	tons/yr of VOC	Emissions from worst case fuel: 6.09
Diesel:	33.55	tons/yr of VOC		Diesel:	0.67	tons/yr of VOC	
Ethanol:	56.08	tons/yr of VOC		Ethanol:	1.12	tons/yr of VOC	
Jet Fuel:	56.74	tons/yr of VOC		Jet Fuel:	1.13	tons/yr of VOC	
Crude Oil: crude oil vapor will no	0.00	tons/yr of VOC		Crude Oil: crude oil vapor will no l	0.00	tons/yr of VOC	
Propane:	293.98	tons/yr of VOC		Propane:	5.88	tons/yr of VOC	
Total:	598.64	tons/yr of VOC		Total:	11.97	tons/yr of VOC	

⁴Requested propane emissions calculated using Emission Estimation Protocol for Petroleum Refineries, Chapter 11, Section 11.1 Gaseous Process Vessel Depressurization and Purging, Equation 11-1.

Actual Uncontrolled VOC Emissions from Steam Blow Down ⁵ :				Actual Controlled VOC Emissions from Steam Blow Down:			
Gasoline:	8.40	tons/yr of VOC	Emissions from worst case fuel:	Gasoline:		tons/yr of VOC	Emissions from worst case fuel: Same as uncontrolled - flare not installed yet
Diesel:	0.00	tons/yr of VOC		Diesel:	Same as uncontrolled - flare not installed	tons/yr of VOC	
Ethanol:	0.00	tons/yr of VOC		Ethanol:		tons/yr of VOC	
Jet Fuel:	0.00	tons/yr of VOC		Jet Fuel:	flare not installed	tons/yr of VOC	
Crude Oil: crude oil vapor will no	0.17	tons/yr of VOC		Crude Oil: crude oil vapor will no l	yet	tons/yr of VOC	
Propane:	0.025	tons/yr of VOC		Propane:		tons/yr of VOC	
Total:	8.59	tons/yr of VOC		Total:	8.59	tons/yr of VOC	

⁵ Actual crude oil & propane emissions calculated asuuming 2 gallons left in each tanker truck since these tanker trucks were blown-down prior to arriving at facility.

Potential VOC Emissions from Steam Blow Down:			
Gasoline:	1140.53	tons/yr of VOC	
Diesel:	125.60	tons/yr of VOC	
Ethanol:	209.94	tons/yr of VOC	
Jet Fuel:	212.42	tons/yr of VOC	
Crude Oil: crude oil vapor will no	0.00	tons/yr of VOC	
Propane:	1100.53	tons/yr of VOC	
Total:	2241.06	tons/yr of VOC	Emissions from worst case fuel: 1140.53

Tanker Truck Blowdown - Preliminary Analysis - HAP Emissions

Company:	Polar Service Centers	Engineer:	Renee Lee
Location:	4850 E. 74th Ave., Commerce City	Approval:	Initial - Issuance 1
Permit No:	20AD0890	SCC:	40600163
AIRS ID:	001/2264/001	Actual Data Year:	2020
Attainment/Non-Attainment:	Non-attainment	Date PA Completed:	6/21/2021

Gasoline:							PTE		Requested Emissions				Actual Emissions			
Pollutant	Liquid Weight Fraction	Molar Mass (lb/lb-mol)	Liquid Mole Fraction	Vapor Pressure (psia)	Partial Pressure (psia)	Vapor Weight Fraction	(lbs/yr)	(tons/yr)	Uncontrolled (lbs/yr)	(tons/yr)	Controlled (lbs/yr)	(tons/yr)	Uncontrolled (lbs/yr)	(tons/yr)	Controlled (lbs/yr)	(tons/yr)
Toluene	0.25	92.14	0.18	0.4	0.07	0.012	27155.48	13.58	7253.86	3.63	145.08	0.07	199.88	0.10		
n-Hexane	0.04	86.18	0.030633558	2.3	0.070	0.010952381	24983.04	12.49	6673.55	3.34	133.47	0.07	183.89	0.09		
Xylene	0.15	106.16	0.093255463	0.2	0.019	0.003571429	8146.64	4.07	2176.16	1.09	43.52	0.02	59.97	0.03	same as uncontrolled - flare not installed yet	
Ethylbenzene	0.03	106.168	0.018649687	0.2	0.004	0.000714286	1629.33	0.81	435.23	0.22	8.70	0.00	11.99	0.01		
Benzene	0.049	78.114	0.041401029	2	0.083	0.011666667	26612.37	13.31	7108.78	3.55	142.18	0.07	195.89	0.10		
Total HAPs:							88526.86	44.26	23647.59	11.82	472.95	0.24	651.62	0.33	0.00	0.00

Diesel:							PTE		Requested Emissions				Actual Emissions			
Pollutant	Liquid Weight Fraction	Molar Mass (lb/lb-mol)	Liquid Mole Fraction	Vapor Pressure (psia)	Partial Pressure (psia)	Vapor Weight Fraction	(lbs/yr)	(tons/yr)	Uncontrolled (lbs/yr)	(tons/yr)	Controlled (lbs/yr)	(tons/yr)	Uncontrolled (lbs/yr)	(tons/yr)	Controlled (lbs/yr)	(tons/yr)
n-Hexane	0.02	86.18	0.03	2.3	0.069	5.75	1444407.84	722.20	385834.97	192.92	7716.70	3.86	0.00	0.00	same as uncontrolled - flare not installed yet	
Naphthalene	0.01	128.17	0.01	0.0024	0.000	0.003	753.60	0.38	201.31	0.10	4.03	0.00	0.00	0.00		
Total HAPs:							1445161.44	722.58	386036.28	193.02	7720.73	3.86	0.00	0.00	0.00	0.00

Ethanol:							PTE		Requested Emissions				Actual Emissions			
Pollutant	Liquid Weight Fraction	Molar Mass (lb/lb-mol)	Liquid Mole Fraction	Vapor Pressure (psia)	Partial Pressure (psia)	Vapor Weight Fraction	(lbs/yr)	(tons/yr)	Uncontrolled (lbs/yr)	(tons/yr)	Controlled (lbs/yr)	(tons/yr)	Uncontrolled (lbs/yr)	(tons/yr)	Controlled (lbs/yr)	(tons/yr)
Methanol	0.005	32.04	0.01	2.46	0.018	0.011	4502.65	2.25	1202.76	0.60	24.06	0.01	0.00	0.00	same as uncontrolled - flare not installed yet	
Benzene	0.002	78.114	0.00	1.83	0.002	0.003	1339.81	0.67	357.89	0.18	7.16	0.00	0.00	0.00		
Total HAPs:							5842.46	2.92	1560.66	0.78	31.21	0.02	0.00	0.00	0.00	0.00

Jet Fuel:							PTE		Requested Emissions				Actual Emissions			
Pollutant	Liquid Weight Fraction	Molar Mass (lb/lb-mol)	Liquid Mole Fraction	Vapor Pressure (psia)	Partial Pressure (psia)	Vapor Weight Fraction	(lbs/yr)	(tons/yr)	Uncontrolled (lbs/yr)	(tons/yr)	Controlled (lbs/yr)	(tons/yr)	Uncontrolled (lbs/yr)	(tons/yr)	Controlled (lbs/yr)	(tons/yr)
Toluene	0.01	92.14	0.01	0.4	0.006	0.010	4391.08	2.20	1172.96	0.59	23.46	0.01	0.00	0.00	same as uncontrolled - flare not installed yet	
Xylene	0.02	106.16	0.02	0.2	0.005	0.010	4391.08	2.20	1172.96	0.59	23.46	0.01	0.00	0.00		
Ethylbenzene	0.01	106.168	0.01	0.2	0.002	0.005	2195.54	1.10	586.48	0.29	11.73	0.01	0.00	0.00		
Benzene	0.01	78.114	0.02	2	0.033	0.052	21955.40	10.98	5864.80	2.93	117.30	0.06	0.00	0.00		
Naphthalene	0.03	128.17	0.03	0.0024	0.000	0.000	79.04	0.04	21.11	0.01	0.42	0.00	0.00	0.00		
Total HAPs:							33012.15	16.51	8818.31	4.41	176.37	0.09	0.00	0.00	0.00	0.00

Crude Oil: crude oil vapor will no longer be processed at this facility							PTE		Requested Emissions				Actual Emissions			
Pollutant	Liquid Weight Fraction	Molar Mass (lb/lb-mol)	Liquid Mole Fraction	Vapor Pressure (psia)	Partial Pressure (psia)	Vapor Weight Fraction	(lbs/yr)	(tons/yr)	Uncontrolled (lbs/yr)	(tons/yr)	Controlled (lbs/yr)	(tons/yr)	Uncontrolled (lbs/yr)	(tons/yr)	Controlled (lbs/yr)	(tons/yr)
Toluene	0.05	92.14	0.03	0.4	0.01	0.002	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00	same as uncontrolled - flare not installed yet	
n-Hexane	0.05	86.18	0.03	2.3	0.067	0.012	0.00	0.00	0.00	0.00	0.00	0.00	3.87	0.00		
Xylene	0.03	106.16	0.01	0.2	0.003	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00		
Ethylbenzene	0.02	106.168	0.01	0.2	0.002	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00		
Benzene	0.01	78.114	0.01	2	0.013	0.002	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00		
Naphthalene	0.009	128.17	0.00	0.002	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Hydrogen Sulfide	0.002	34.1	0.00	250	0.733	0.050	0.00	0.00	0.00	0.00	0.00	0.00	16.82	0.01		
Total HAPs:							0.00	0.00	0.00	0.00	0.00	0.00	22.38	0.01	0.00	0.00

Total:		PTE		Requested Emissions				Actual Emissions			
Pollutant		(lbs/yr)	(tons/yr)	Uncontrolled (lbs/yr)	(tons/yr)	Controlled (lbs/yr)	(tons/yr)	Uncontrolled (lbs/yr)	(tons/yr)	Controlled (lbs/yr)	(tons/yr)
Toluene		27155.48	13.58	7,253.86	3.63	145.08	0.073	200.56	0.10		
n-Hexane		1444407.84	722.20	385,834.97	192.92	7716.70	3.86	187.76	0.09		
Xylene		8146.64	4.07	2,176.16	1.09	43.52	0.02	60.17	0.03		
Ethylbenzene		2195.54	1.10	586.48	0.29	11.73	0.01	12.13	0.01	same as uncontrolled - flare not installed yet	
Benzene		26612.37	13.31	7,108.78	3.55	142.18	0.07	196.56	0.10		
Methanol		4502.65	2.25	1,202.76	0.60	24.06	0.01	0.00	0.00		
Naphthalene		753.60	0.38	201.31	0.10	4.03	0.00	0.00	0.00		
Hydrogen Sulfide		0.00	0.00	-	-	0.00	0.00	16.82	0.01		
Total HAPs:		1513774.12	756.89	404364.32	202.18	8087.29	4.04	657.17	0.33	0.00	0.00

Tanker Truck Blowdown - Preliminary Analysis - Flare Emissions

Company:	Polar Service Centers	Engineer:	Renee Lee
Location:	4850 E. 74th Ave., Commerce City	Approval:	Initial - Issuance 1
Permit No:	20AD0890	SCC:	40600163
AIRS ID:	001/2264/001	Actual Data Year:	2020
Attainment/Non-Attainment:	Non-attainment	Date PA Completed:	6/21/2021

For flare design:				
	5714862.75 ft3/yr	2442.25 ft3/hr	21980.24135 ft3/day	0.0220 MMft3/day
	0 ft3/yr	0.00 ft3/hr	0 ft3/day	0.0000 MMft3/day
	0 ft3/yr	0.00 ft3/hr	0 ft3/day	0.0000 MMft3/day
	0 ft3/yr	0.00 ft3/hr	0 ft3/day	0.0000 MMft3/day
	3208344 ft3/yr	1371.09 ft3/hr	12339.78462 ft3/day	0.0123 MMft3/day
Total:	8923206.75 ft3/yr	3813.34 ft3/hr	34320.02596 ft3/day	0.0343 MMft3/day
63.56 ft3/min				

Flared Gas Properties:	
19,500.00	btu/lb
0.04	lb/scf
793.21	btu/scf

Flare Max heat duty rating:	11.7 MMBtu/hr
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Combustion Emissions from Flared Gas								lb/hr		
	Emission Factor	Emission Factor Units	Requested lb/yr of flared	MMBtu/yr of flared gas	MMScf/yr of flared gas	Controlled Emissions (ton/yr)	Emission Factor Source			
CO	0.550	lb/MMBtu	1,197,278.21	23346.93	29.43	6.42	TCEQ Appendix A: Technical	6.43	5.483534	0.544898
NOx	0.064	lb/MMBtu				0.75	Supplements	0.75	0.642046	
SO2 ¹	0.6	lb/MMScf				0.0	AP-42 Table 1.4-2	0.01	0.009647	

¹ Assumed sulfur content of gasoline, diesel, ethanol, jet fuel and propane vapors = sulfur content of natural gas. Emissions from H2S in crude oil calculated below using Ideal Gas Law. 113.21 MScf/day

² Assumed mass of vapors entering flare = mass of VOC emissions entering flare

SO2 Emissions from crude oil:			
0.00 lb of H2S/hr	0.00 lbmol of H2S/hr		
64.07 lb/lbmol of SO2 -MW	0.0 lb SO2/hr ³	0.0 ton SO2/yr ³	

³ Assumed 100% by weight of H2S is converted to SO2. H2S volumetric waste flow rate converted into molar flow rate using ideal gas law. One mole of H2S will form one mole of SO2. As much as 2% of H2S will be emitted due to 98% CE of flare.

Design Heat Input Rate:		0.03 MMBtu/hr		Throughput:		0.22 MMScf/yr		Fuel Heating Value:		1,020 MMBtu/MMScf	
Criteria Pollutant	EF lb/MMScf	PTE tpy	Uncontrolled tpy	Controlled tpy	lb/hr	lb/day	EF Source	Control Device	Control Efficiency		
PM	7.60	0.001	0.001	0.001	0.000	0.005	AP-42 Table 1.4-2	None	0		
PM10	7.60	0.001	0.001	0.001	0.000	0.005	Assume = PM	None	0		
PM2.5	7.60	0.001	0.001	0.001	0.000	0.005	Assume = PM	None	0		
SO2	0.60	0.000	0.000	0.000	0.000	0.000	AP-42 Table 1.4-2	None	0		
NOx	100.00	0.011	0.011	0.011	0.003	0.060	AP-42 Table 1.4-1	None	0		
CO	84.00	0.009	0.009	0.009	0.002	0.050	AP-42 Table 1.4-1	None	0		
VOC	5.50	0.001	0.001	0.001	0.000	0.003	AP-42 Table 1.4-2	None	0		
Lead	0.00	0.000	0.000	0.000	0.000	0.000	AP-42 Table 1.4-2	None	0		
HAP	EF lb/MMScf	PTE tpy	Uncontrolled lb/yr	Controlled tpy	lb/yr	tpy	EF Source	Control Device	Control Efficiency		
Hexane	1.80000	0.000	0.394	0.000	0.394	0.000	AP-42 Table 1.4-3	None	0		
Toluene	0.00340	0.000	0.001	0.000	0.001	0.000	AP-42 Table 1.4-3	None	0		
Benzene	0.00210	0.000	0.000	0.000	0.000	0.000	AP-42 Table 1.4-3	None	0		
Formaldehyde	0.07500	0.000	0.016	0.000	0.016	0.000	AP-42 Table 1.4-3	None	0		

Inventory Summary

Permit #: 20AD0890
AIRS #: 001/2264/001
Company: Polar Service Centers
Engineer: Renee Lee

Approval: IA
Date: 21-Jun-21
Attainment/Non: Non-Attainment
Data Year: 2020

NSPS Subparts: None
MACT Subparts: None
Classification: Synthetic Mi

Point	Process	SCC	Description	Pollutant	EF	Control	Control %		Emissions (lb/yr)	Fugitive?
001	Blowdown	40600163	VOC & HAPs from petroleum product vapors released during blow down/cleaning of service tanker trucks. VOC & HAP emissions controlled by flare. CO, Nox, & SO2 emissions from flare.	VOC	mass balance	None	0		17176.07	No
				Toluene	mass balance	None	0		200.56	No
				n-Hexane	mass balance	None	0		187.76	No
				Xylene	mass balance	None	0		60.17	No
			Gasoline, Diesel, Ethanol & Jet Fuel Vapor Throughput (gal/yr):	Ethylbenzene	mass balance	None	0		12.13	No
			1,178,000	Benzene	mass balance	None	0		196.56	No
			Crude Oil Vapor Throughput (gal/yr):	Methanol	mass balance	None	0		0.00	No
			228,000	Naphthalene	mass balance	None	0		0.00	No
				Hydrogen Sulfide	mass balance	None	0		16.82	No
			Propane Vapor Throughput (gal/yr):							
			0							
	flare	30600904	Flare - process gas	CO	0.5496	lb/MMBtu	0		12831.47	No
				NOx	0.0641	lb/MMBtu	0		1496.54	No
				SO2	mass balance		0		17.66	No



Modeling Determination Request for EnTrans 001/2264

3 messages

Lee - CDPHE, Renee <renee.lee@state.co.us>

Fri, Dec 10, 2021 at 4:33 PM

To: Emmett Malone - CDPHE <emmett.malone@state.co.us>

Cc: Kenneth Houlden - CDPHE <kenneth.houlden@state.co.us>

Hi Emmett,

I have an application from EnTrans International, LLC for a flare controlling a newly reported petroleum tanker truck blowdown operation at Polar Service Center located at 4850 E. 74th Ave., Commerce City, (39.830059 / -104.930892). These tankers are blown down to remove any explosive vapors prior to service being completed. There is no other reported equipment at this facility.

The long term net emissions from the flare are under the Table 1 thresholds but over the short term for NOx:

Pollutant	Emissions from this source		
	tpy	lb/hr	lb/day
CO	9.45	6.43	--
Nox	1.1	0.75	--
SO2	0.01	0.01	--
PM10	--	--	--
PM2.5	--	--	--

I will wait to hear back from you before moving forward.

Thank you!

Renee Lee

Construction Permit Engineer



P 303.692.3197
4300 Cherry Creek Drive South, Denver, CO 80246
renee.lee@state.co.us

Mon, Dec 13, 2021 at 9:13 AM

Malone - CDPHE, Emmett <emmett.malone@state.co.us>
To: "Lee - CDPHE, Renee" <renee.lee@state.co.us>
Cc: Kenneth Houlden - CDPHE <kenneth.houlden@state.co.us>

Hi,

MEIU does not feel that that source will threaten the NAAQS and therefore does not recommend modeling to demonstrate compliance with the NAAQS.

MEIU time spent 10 minutes

Emmett Malone
Supervisor
Modeling and Emissions Inventory Unit
[Technical Services Program](#)
Air Pollution Control Division
Colorado Department of Public Health and Environment
APCD-TS-B1
[4300 Cherry Creek Drive South](#)
[Denver, CO 80246-1530](#)
303-692-3136 | Emmett.Malone@state.co.us

"Are you curious about ground-level ozone in Colorado? Visit our [ozone webpage](#) to learn more."

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Mon, Dec 13, 2021 at 2:04 PM

Lee - CDPHE, Renee <renee.lee@state.co.us>
To: "Malone - CDPHE, Emmett" <emmett.malone@state.co.us>

Thank you Emmett.

Renee Lee
Construction Permit Engineer



P 303.692.3197

4300 Cherry Creek Drive South, Denver, CO 80246
renee.lee@state.co.us

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