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March 3, 2020

Kerwin C. Singleton
Planning Section Chief
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505

Re: Request for additional Information on the Four-Factor Analysis Report
Regional Haze Program
Artesia Gas Plant
DCP Operating Company, LP

Mr. Singleton,

DCP Operating Company, LP (DCP) is in receipt of the New Mexico Environment Department's (NMED's) January 7, 2020, "*Request for Additional Information for Four-Factor Analyses under the Regional Haze Program*" ("Request for Additional Information" or supplemental information request), which requests various and specific supplemental information, technical discussions, analyses, and data, including possible supplemental "Four-Factor Analyses," for multiple sources with respect to DCP's Artesia natural gas processing plant in Eddy County, New Mexico. In the time afforded, and given the objections below, this letter provides DCP's responses to the January 2020 Request for Additional Information (in **blue** font, below).

NMED's January 7, 2020, Request for Additional Information, including potential Four-Factor Analyses, does not state a timeline by when the operator is to provide responsive information, and only states qualitatively to submit responses "as soon as possible." DCP notes that NMED's initial request for Four-Factor Analyses dated July 18, 2019, afforded approximately three and a half months to fulfill NMED's request for responses and analyses, requested by November 1, 2019. Given the level of information expected in NMED's initial request, DCP believes three and a half months was impracticably short, but DCP fulfilled the request to the best of the company's ability. With respect to the January 2020 Request for Additional Information, DCP received a phone call from NMED on February 10, 2020, expecting a response to the supplemental information request and possible Four-Factor Analyses by February 14, 2020, five weeks from NMED's letter of January 7, 2020. February 14, 2020, is unrealistic and unreasonable for the responses requested by NMED. DCP will provide what information it reasonably can by March 3, 2020, and will otherwise provide follow-on requested information when it is reasonable to do so given what is being requested by the agency.

As this is an administrative proceeding with an administrative record, for the record DCP must note any objections it has to the NMED request. DCP states the following objections for the record in relation to NMED's request for Regional Haze-related information and analyses, and preserves its rights related thereto notwithstanding DCP's providing information requested by NMED.

- DCP has limited resources available to respond to NMED's initial, and now supplemental information request; DCP does not have resources available to be dedicated full time to responding to NMED requests analyses, technical discussions, and responding to requests for information. DCP has expended resources, where practicable, to have third party support with respect to the company's responses to NMED's requests for assessments and information, but that support is not always practicable or available, and there are limitations on DCP's use of such third party support. DCP is providing the responses herein, to the agency's supplemental request for information, to the best of the company's ability, in the time afforded, given the limitations of its resources.

- NMED's amount of time afforded to respond to the agency's Request for Additional Information, potentially including Four-Factor Analyses, is impracticably short, unrealistic and unreasonable for a number of the requested items, and affects DCP's ability to respond to the various requests.

- DCP objects to NMED's Request for Additional Information to the extent the requests are for assessments, discussion, information, data that are not presently available and in the possession of the source, in this case DCP. It is within NMED's authority to request information presently available and in the possession of a source operator, but it is beyond the agency's authority to require a source to create or generate information or data that does not presently exist or is not in the possession of the source, or to require a source to expend monies/resources to create or generate such information or data.

- DCP objects to vague, ambiguous or undefined terms in the Request for Additional Information, and objects to the extent the request require DCP to engage in speculation in order to attempt to respond to an agency's stated question or request.

- DCP objects NMED's requests for assessments or analyses that directly or indirectly result in or would relate to "redefining the source," being a properly-authorized, operating, and permitted emissions source. The federal Regional Haze regulation contemplates emissions control technologies that might be cost-effectively retrofitted on a source; redefining a properly-authorized, permitted and operating source is not a retrofit control technology, and is beyond the authority of the Regional Haze rule to consider as a Reasonable Progress measure.

- DCP objects to the fact that NMED has not provided, as part of this administrative process, the cost-effectiveness threshold for control technologies for the Regional Haze Reasonable Progress rulemaking.

- DCP objects to the agency's fundamental threshold for requesting 4-Factor Analyses from sources in the State, *i.e*., Q/d of 5, as this is unreasonably stringent and requiring resource expenditures for assessments of sources that would not effectively contribute to visibility improvement in Class I areas. The State of Colorado applied a Q/d of 20 as its screening criteria, which assumed an estimated associated deciview improvement of 0.3; a Q/d of 5 would provide, presumably, one-quarter of the assumed visibility improvement, so requiring screening of sources at that level that would provide potentially, *e.g*., 0.07 deciview improvement.

Preserving the objections noted, above, DCP responds to the agency's January 7, 2020, Request for Additional Information as follows (NMED Jan. 7, 2020, requests re-stated in black font, and DCP responses provided in blue font).

a. Provide a description of each flare, the design and type, and its purpose.

Unit No. SSM (22), Emergency Wet Gas Flare, serves as both emergency/SSM flare and a process flare to Artesia's wet gas service. The Emergency wet gas flare will flare pilot, purge, and blanket gas from TK-C (condensate storage tank) during steady state operations and any gas flow to the flare that results from startup, shutdown, maintenance, malfunction (SSM&M) and other emergency events.

Unit No. SSM (23), Acid Gas Flare, serves as emergency/SSM&M flare to Artesia's acid gas service. The Acid gas flare will flare pilot, purge, assist gas and any acid gas flow to the flare that results from SSM&M and emergency events.

Please reference *Attachment A – Flare Emission Calculation*.

b. List and describe the reasons that trigger each type of flaring event.

Steady state emission from the Emergency Wet Gas Flare and Acid Gas Flare are represented in the *Attachment A – Flare Emission Calculation*.

Other flaring events include permit authorized planned SSM flaring events and unplanned flaring events. Planned SSM emission flaring events are triggered by routine maintenance at frequency recommended by the manufacturer. Allowable emission limit as included in the facility's air permit represent maximum amount of emission that can occur during all planned maintenance activities and startup/shutdown events that is anticipated pre and post-maintenance. However, these planned maintenance events do not occur at the same frequency, i.e. quarterly, annual, biennial, every five year and etc, therefore, actual emission that occur at the facility differs each year as represented in DCP's process and SSM flaring four factor analysis report submitted on December 16, 2019.

Unplanned flaring events are triggered through various unforeseeable reasons such as equipment malfunction, power loss, and etc. Excess emission resulting from these event are reported to NMED pursuant to NMAC 20.2.7.110. DCP operates emission equipment in a manner consistent with good air pollutant control practices for minimizing emission.

c. Discuss potential alternative control options or operational changes that could reduce NO_X and/or SO_2 flaring emissions, including:

i. infrastructure that allows re-routing or recirculating the gas within the facility or outside of the facility until an SSM event is over;

Artesia's current infrastructure supports nat. gas re-routing, and off-loading when feasible under certain circumstances, each of which serve to reduce flaring emissions. Artesia has the ability, when necessary, to close the nat. gas inlet to the facility, which significantly limits or prevents flaring at the facility. Artesia also coordinates with the producers, either prior to a planned event, or when feasible during an unplanned event, to temporarily re-route nat. gas to other facilities if practicable or to shut in nat. gas for a finite period, to reduce the volume of nat. gas potentially subjected to flaring at the facility. Under certain circumstances DCP can, and does, utilize producer temporary off-load capabilities, or DCP capability to temporarily re-route gas when practicable and feasible, to minimize the volume of nat. gas potentially subjected to flaring at the facility. DCP believes that these capabilities and measures, taken together, serve to prevent flaring at the Artesia facility or to mitigate the duration of a flaring event or the volume

of material subjected to flaring. DCP is not aware of another technically feasible option to appreciably further reduce flaring events or volumes at the facility.

ii. sulfur absorbent technology used to remove sulfur from pipelines and other auxiliary equipment to reduce inlet or plant flaring SO_2 emissions;

The Artesia nat. gas processing plant receives, and is designed to receive, high hydrogen sulfide ("H2S") concentration natural gas, referred to as "sour" nat. gas. Given the high H2S concentration received by the Artesia plant, an amine treatment system is the most effective and the only technology that is technically feasible to remove sulfur and treat the sour gas stream of this volume and concentration.

Other sulfur absorbent technology, such as pipeline additive injection, commonly referred to as hydrogen sulfide scavenger, is utilized only non-sour gas systems, meaning on what are known as "sweet" gas streams, in order to treat very small amounts of hydrogen sulfide that might exist in a sweet gas stream to meet a certain specification, and are not suitable or effective for treating the sour gas stream processed at Artesia Plant; they would not meaningfully reduce the concentration of H2S that would recognizably affect the amount of sulfur received by the Artesia plant.

iii. Gas Capture Plans with facilities located downstream and upstream similar to those required for producers to better synchronize upstream and downstream services with the facility;

DCP objects to the use of an ambiguous or undefined term with respect to a midstream nat. gas processing plant facility, and to the extent this question requires speculation. A Gas Capture Plan is a New Mexico Oil Conservation Division ("NMOCD") requirement for producer entities, for the producer's production development, to ensure communication between the producer entity and gatherer in order to improve communication and planning future nat. gas takeaway capacity, in order to mitigate the potential for a producer entity having to flare what would be stranded gas at its well production facility if there weren't nat. gas takeaway. DCP as a midstream entity does confer with producers about the producer's Gas Capture Plans. The concept, however, has no applicability to a midstream nat. gas processing plant as such a facility, for example the Artesia plant, is by definition designed to receive and process the producer's nat. gas; DCP's Artesia gas plant does not flare nat. gas due to lacking capacity, for example, so the concept is not applicable to a midstream gas processing plant.

iv. use of remote capture equipment;

DCP objects to the use of an ambiguous or undefined term with respect to a midstream nat. gas processing plant facility, and to the extent this question requires speculation. Remote capture equipment, as DCP understands it from NM agency materials, is a concept that relates to and provides capability at a producer wellhead and relates to wellhead volumes of nat. gas and nat. gas products (liquids) at the producer wellhead. The same concept does not have applicability to a midstream nat. gas processing facility, and the type of technology is not applicable at the scale of a nat. gas processing facility; a midstream nat. gas processing plant, by definition, is removing nat. gas products (liquids) from the inlet material, which is one of its functions.

v. better infrastructure planning and changes to existing infrastructure that connects the downstream and upstream operations to DCP facilities to ensure that there is adequate processing capacity to move produced gas to market.

DCP objects to the use of ambiguous or undefined terms, and to the extent this question requires speculation. As described in the prior responses, DCP's Artesia nat. gas plant processing capacity appropriately and adequately manages relevant producer nat. gas production; the plant does not flare nat. gas due to lacking capacity.

Note that flaring at an up or downstream facility to avoid flaring at the Artesia Gas Plant is not considered to be an actual reduction in flared emissions rates under the four-factor analysis.

d. For any technically feasible solutions, provide a four-factor analysis. For additional information regarding potential alternative controls to flaring see the New Mexico Methane Strategy website: https://www.env.nm.gov/new-mexico-methane-strategy/methane-advisory-panel/.

Considering the above requests, DCP is not aware of any additional flaring technology or relevant operational changes that are technically feasible.

e. Please explain the discrepancy between the SSM SO_2 emissions provided in the supplemental flaring analysis (0.0 tons) and NMED's 2016 inventory (17.96 tons).

The referenced SSM SO2 emission amount only refers to authorized emission and does not include excess emission resulting from unforeseeable events. Table 2 of the December 16, 2019 submitted response is titled "Artesia 2016 EIQ Reported **Process** Flaring and **SSM** Flaring Emission".

If you have any questions or concerns, please feel free to contact me directly by phone at 432-215-8514 or via email at hshong@dcpmidstream.com.

Sincerely,

Sam Hong
Environmental Engineer
DCP Midstream, LP

Enclosures

Attachment A – Flare Emission Calculation

DCP Midstream, LP - Artesia Gas Plant

Emergency Wet Gas Flare

Emission Unit: 22

Estimated Flared Gas Composition Used for Calculations

Component	MW	Flared Gas[1] Mol%	MW * wet vol %	HHV Btu/scf[2]	Btu/scf * wet vol %	Mass Fraction (wet)	Spec. Volume[2] ft^3/lb	Spec. Volume VOC ft^3/lb
Water	18.02	0.0000%	0.00	0.0	0.0	0.00	21.06	
Hydrogen Sulfide	34.08	0.4144%	0.14	637.02	2.6	0.01	11.136	
Carbon Dioxide	44.01	1.0534%	0.46	0.0	0.0	0.02	8.623	
Nitrogen	28.01	1.7683%	0.50	0.0	0.0	0.02	13.547	
Oxygen	32.00	0.0000%	0.00	0.0	0.0	0.00	13.5	
Methane	16.04	71.6031%	11.49	1009.7	723.0	0.49	23.65	
Ethane	30.07	12.2486%	3.68	1768.7	216.6	0.16	12.62	
Propane	44.10	6.6464%	2.93	2517.2	167.3	0.12	8.606	3.514
i-Butane	58.12	0.9775%	0.57	3252.6	31.8	0.02	6.529	0.517
n-Butane	58.12	2.4062%	1.40	3262	78.5	0.06	6.529	1.272
i-Pentane	72.15	0.7272%	0.52	4007.7	29.1	0.02	4.26	0.311
Pentanes	72.15	0.7169%	0.52	4008.7	28.7	0.02	5.26	0.379
Hexanes+	86.18	1.4380%	1.24	4756.1	68.4	0.05	4.404	0.760
		100%	23.45		1346.1	1.00		6.753
NMNEHC (VOC)		12.9%				30.6%		

[1] *Based on Analysis 07/1/2012, ARTESIA PLT 5# FLARE, unit 22. to provide conservative estimates for sulfur dioxide and heat release estimate.*

[2] *Component HHVs and specific volumes obtained from Physical Properties of Hydrocarbons, API Research Project 44, Fig. 16-1, Rev. 1981.*

Fuel Data

Flare Pilot	500	scf/hr	Design
	0.0005	MMscf/hr	
	1008.00	Btu/scf	Pipeline Gas, HHV
	0.50	MMBtu/hr	MMscf/hr * Btu/scf
Purge Gas	25.80	Mscf/day	Design
	1.075	Mscf/hr	Mscf/d / 24 hr/day
	0.001075	MMscf/hr	Mscf/hr / 1000
	1000.00	Btu/scf	Pipeline Gas, HHV
	1.08	MMBtu/hr	MMscf/hr * Btu/scf
TK-C Blanket Gas	1.50	Mscf/day	Design
	0.0625	Mscf/hr	Mscf/d / 24 hr/day
	0.0000625	MMscf/hr	Mscf/hr / 1000
	1000.00	Btu/scf	Pipeline Gas, HHV
	0.06	MMBtu/hr	MMscf/hr * Btu/scf
Flared Gas - Short Term	7.0	MMscf/hr	Effective hourly flowrate
	1,346	Btu/scf	Heating value calculated from gas compostion above.
	9,452	MMBtu/hr	Hourly heat rate = Heating value * Effective hourly flow rate.
Flared Gas - Annual	142.1	MMscf/yr	Estimated Maximum annual SSM flow rate. Not a requested limit; for calculation only.
Total	9453.3	MMBtu/hr	**Pilot + Purge gas + TK-C Blanket Gas + Flared gas**

Stack Parameters

	1000	˚C	Exhaust temperature	Per NMAQB guidelines
	20	m/sec	Exhaust velocity	Per NMAQB guidelines
	70.6	ft	Flare height	
Pilot + Purge Gas + TK-C Blanket Gas				
	16.04	g/mol	Pilot & Purge gas molecular weight	Mol. wt. of methane, the dominant species
	114,905	cal/sec	Heat release (q)	MMBtu/hr * 10^6 * 252 cal/Btu ÷ 3600 sec/hr
	92,816		q_n	$q_n = q(1\text{-}0.048(MW)^{1/2})$
	0.3047	m	Effective stack diameter (D)	$D = (10^{-6}q_n)^{1/2}$
Pilot + Purge Gas + TK-C Blanket Gas				
	23.45	g/mol	Flared gas molecular weight	Volume weighted mol. wt. of all components
	6.62E+08	cal/sec	Heat release (q)	MMBtu/hr * 10^6 * 252 cal/Btu ÷ 3600 sec/hr
	5.08E+08		q_n	$q_n = q(1\text{-}0.048(MW)^{1/2})$
	22.5373	m	Effective stack diameter (D)	$D = (10^{-6}q_n)^{1/2}$

DCP Midstream, LP - Artesia Gas Plant

Emergency Wet Gas Flare

Emission Unit: 22

Emission Rates

Pilot + Purge Gas + TK-C Blanket Gas

NOx	CO	VOC	H_2S	SO_2	Units	
0.0680	0.3700				lb/MMBtu	AP-42 Table 13.5-1 (9/91) (Reformatted 1/95)
			4E-04		lb H_2S/Mscf	Purchased sweet natural gas fuel, 0.25 gr H_2S/100scf
			5.85E-04		lb H_2S/hr	H_2S rate * fuel usage
				7E-03	lb S/Mscf	Purchased sweet natural gas fuel, 5 gr S/100scf
				1E-02	lb SO_2/hr*	SO_2 rate * fuel usage
		0.00%			mol%	Assume no VOC content in purchased fuel (methane)
		23.7			ft^3/lb	Specific volume (methane)
		0.00			lb/hr	vol. Gas * mole fraction / specific volume
100%	100%	100%	100%	100%	%	Safety Factor
0.1360	0.7400				lb/MMBtu	Unit emission rate with Safety Factor
0.223	**1.215**				lb/hr	lb/MMBtu * MMBtu/hr
		0.00	**2.3E-05**	**0.023**	lb/hr	98% combustion H_2S; 100% conversion to SO_2
0.98	**5.32**	**0.00**	**1.0E-04**	**0.10**	tpy	8760 hrs/yr

Flared Gas

NOx	CO	VOC	H_2S	SO_2	Units	
0.0680	0.3700				lb/MMBtu	AP-42 Table 13.5-1 (9/91) (Reformatted 1/95)
		12.91%	0.41%		mol%	Flare Gas
		6.753	11.136		ft^3/lb	Specific volume
		134,257.2	2,612.9		lb/hr	vol. Gas * mole fraction / specific volume
642.72	3497.13				lb/hr	lb/MMBtu * MMBtu/hr
642.72	3497.13	134,257.2	2,612.9	4918.3	lb/hr	Uncontrolled emissions
6.50	35.38	1,358.2	26.4	49.8	tpy	at maximum rate

Unit 22 - Emergency Wet Gas Flare	NOx	CO	VOC	H_2S	SO_2	HAPs	Units
Pilot + Purge + TK-C Blanket Gas	**642.9**	**3498.3**	**2685.1**	**52.3**	**4918.4**	**38.6**	lb/hr
+ Flared Gas	**7.5**	**40.7**	**27.2**	**0.53**	**49.9**	**0.39**	tpy

GHG Emissions

	CO_2e Short Tons/yr		
CO_2	11,536.2	Eq 4-15	API Compendium
CH_4	10.7	Eq 4-16	API Compendium
N_2O	0.00023	Eq 4-17	API Compendium
Total CO2e	**11,804**		

DCP Midstream, LP - Artesia Gas Plant

Emergency Acid Gas Flare

Emission Unit: 23

Estimated Flared Gas Composition Used for Calculations

Component	MW	Flared Gas[1] Mol%	MW * wet vol %	HHV Btu/scf[2]	Btu/scf * wet vol %	Mass Fraction (wet)	Spec. Volume[2] ft³/lb	Spec. Volume VOC ft³/lb
Water	18.02	0.0000%	0.00	0.0	0.0	0.00	21.06	
Hydrogen Sulfide	34.08	37.0907%	12.64	637.02	236.3	0.31	11.136	
Carbon Dioxide	44.01	62.5070%	27.51	0.0	0.0	0.68	8.623	
Nitrogen	28.01	0.0315%	0.01	0.0	0.0	0.00	13.547	
Oxygen	32.00	0.0000%	0.00	0.0	0.0	0.00	13.5	
Methane	16.04	0.3439%	0.06	1009.7	3.5	0.00	23.65	
Ethane	30.07	0.0227%	0.01	1768.7	0.4	0.00	12.62	
Propane	44.10	0.0006%	0.00	2517.2	0.0	0.00	8.606	0.766
i-Butane	58.12	0.0013%	0.00	3252.6	0.0	0.00	6.529	1.659
n-Butane	58.12	0.0001%	0.00	3262	0.0	0.00	6.529	0.128
i-Pentane	72.15	0.0000%	0.00	4007.7	0.0	0.00	4.26	0.000
Pentanes	72.15	0.0000%	0.00	4008.7	0.0	0.00	5.26	0.000
Hexanes+	86.18	0.0022%	0.00	4756.1	0.1	0.00	4.404	2.807
		100%	40.22		240.3	1.00		5.359
NMNEHC (VOC)		0.004%				0.0%		

[1] *1 Based on Analysis 07/1/2012, ARTESIA ACID GAS FLARE, unit 23.*

[2] *Component HHVs and specific volumes obtained from Physical Properties of Hydrocarbons, API Research Project 44, Fig. 16-1, Rev. 1981.*

Fuel Data

Flare Pilot	500	scf/hr	Design
	0.0005	MMscf/hr	
	1008.00	Btu/scf	Pipeline Gas, HHV
	0.50	MMBtu/hr	
Purge Gas	3.10	Mscf/day	Design
	0.129	Mscf/hr	Mscf/d / 24 hr/day
	1.29E-04	MMscf/hr	Mscf/hr / 1000
	1008.00	Btu/scf	Pipeline Gas, HHV
	0.13	MMBtu/hr	MMscf/hr * Btu/scf
Assist Gas			
	255.2	Btu/scf	Heating value of Pilot + Purge gas + Flared gas
	865.0	Btu/scf	target heat content
	1,000.0	Btu/scf	Assist gas-assumed sweet
	0.14	MMscf/hr	Assist gas volume
	144.1	MMBtu/hr	Assist gas heat input
*Assist gas - Annual**	57.7	MMscf/yr	Estimated Maximum annual SSM flow rate. Not a requested limit; for calculation only.
Note:	Flared gas annual/ ratio of assist gas: flared gas hourly usa ex: 10.5 MMscf/yr / (1-.8054)		
Flared Gas - Short Term	0.032	MMscf/hr	Effective hourly flowrate
	240	Btu/scf	Heating value calculated from gas compostion above.
	8	MMBtu/hr	Hourly heat rate = Heating value * Effective hourly flow rate.
Flared Gas - Annual	10.5	MMscf/yr	Estimated Maximum annual SSM flow rate. Not a requested limit; for calculation only.
Total	**152.4**	**MMBtu/hr**	**Pilot + Purge gas + Flared gas + Assist gas**

Stack Parameters

	1000	˚C	Exhaust temperature	Per NMAQB guidelines
	20	m/sec	Exhaust velocity	Per NMAQB guidelines
	70.6	ft	Flare height	
Pilot+ Purge Gas only				
	16.04	g/mol	Pilot & Purge gas molecular weight	Mol. wt. of methane, the dominant species
	44,394	cal/sec	Heat release (q)	MMBtu/hr * 10^6 * 252 cal/Btu ÷ 3600 sec/hr
	35,860		q_n	$q_n = q(1\text{-}0.048(MW)^{1/2})$
	0.1894	m	Effective stack diameter (D)	$D = (10^{-6}q_n)^{1/2}$
Flared Gas MW				
	40.22	g/mol	MW flare gas	
	16.04	g/mol	MW assist gas, flare gas, purge gas	
	0.03	MMscf/hr	vol flare gas	
	0.14	MMscf/hr	vol assist gas	
	0.00063	MMscf/hr	vol pilot + purge gas	
	7.26	g/mol	vol. weighted % flare gas	
	13.09	g/mol	vol. weighted % assist gas	
	0.06	g/mol	vol. weighted % pilot + purge gas	
Pilot+Flared Gas+ Assist gas	20.41	g/mol	weighted-averaged Flared gas molecular weight	Volume weighted mol. wt. of all components
	1.07E+07	cal/sec	Heat release (q)	MMBtu/hr * 10^6 * 252 cal/Btu ÷ 3600 sec/hr
	8.35E+06		q_n	$q_n = q(1\text{-}0.048(MW)^{1/2})$
	2.8905	m	Effective stack diameter (D)	$D = (10^{-6}q_n)^{1/2}$

DCP Midstream, LP - Artesia Gas Plant

Emergency Acid Gas Flare

Emission Unit: 23

Emission Rates

Pilot+ Purge Gas

	NOx	CO	VOC	H_2S	SO_2	Units	
	0.0680	0.3700				lb/MMBtu	AP-42 Table 13.5-1 (9/91) (Reformatted 1/95)
				4E-04		lb H_2S/Mscf	Purchased sweet natural gas fuel, 0.25 gr H_2S/100scf
				2.25E-04		lb H_2S/hr	H_2S rate * fuel usage
					7E-03	lb S/Mscf	Purchased sweet natural gas fuel, 5 gr S/100scf
					4E-03	lb SO_2/hr	SO_2 rate * fuel usage
			0.00%			mol%	Assume no VOC content in purchased fuel (methane)
			23.7			ft^3/lb	Specific volume (methane)
			0.00			lb/hr	vol. Gas * mole fraction / specific volume
	100%	100%	100%	100%	100%	%	Safety Factor
	0.1360	0.7400				lb/MMBtu	Unit emission rate with Safety Factor
	0.086	**0.469**				lb/hr	lb/MMBtu * MMBtu/hr
			0.000	**9.0E-06**	**9.0E-03**	lb/hr	98% combustion H_2S; 100% conversion to SO_2
	0.38	**2.06**	**0.000**	**3.9E-05**	**4.0E-02**	tpy	8760 hrs/yr

Assist gas

	NOx	CO	VOC	H_2S	SO_2	Units	
	0.0680	0.3700				lb/MMBtu	AP-42 Table 13.5-1 (9/91) (Reformatted 1/95)
				4E-04		lb H_2S/Mscf	Purchased sweet natural gas fuel, 0.25 gr H_2S/100scf
				5.15E-02		lb H_2S/hr	H_2S rate * fuel usage
					7E-03	lb S/Mscf	Purchased sweet natural gas fuel, 5 gr S/100scf
					1E+00	lb SO_2/hr	SO_2 rate * fuel usage
			0.00%			mol%	Assume no VOC content in purchased fuel (methane)
			23.7			ft^3/lb	Specific volume (methane)
			0.00			lb/hr	vol. Gas * mole fraction / specific volume
	9.799	**53.318**				lb/hr	lb/MMBtu * MMBtu/hr
			0.000	**1.0E-03**	**1.0E+00**	lb/hr	98% combustion H_2S; 100% conversion to SO_2
	1.96	**10.68**	**0.000**	**2.06E-04**	**0.21**	tpy	

Flared Gas

	NOx	CO	VOC	H_2S	SO_2	Units	
	0.0680	0.3700				lb/MMBtu	AP-42 Table 13.5-1 (9/91) (Reformatted 1/95)
			0.004%	37.09%		mol%	Flare Gas
55			5.359	11.136		ft^3/lb	Specific volume
			0.3	1,062.5		lb/hr	vol. Gas * mole fraction / specific volume
	0.52	2.84				lb/hr	lb/MMBtu * MMBtu/hr
	0.52	**2.84**	**0.3**	**21.2**	**2,000.0**	**lb/hr**	98% combustion H_2S; 100% conversion to SO_2
	0.09	**0.47**	**0.04**	**3.5**	**328.0**	**tpy**	

Acid Gas Flare	**NOx**	**CO**	**VOC**	**H_2S**	**SO_2**	**Units**
pilot + flared gas+Assist Gas	**10.4**	**56.6**	**0.005**	**21.3**	**2001.0**	lb/hr
	2.4	**13.2**	**0.00082**	**3.5**	**328.2**	tpy

GHG Emissions

	CO_2e Short Tons/yr		
CO_2	382	Eq 4-15	API Compendium
CH_4	3.8E-03	Eq 4-16	API Compendium
N_2O	1.7E-05	Eq 4-17	API Compendium
Total CO2e	**381.9**		