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OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

MEMORANDUM

May 30, 2017

TO: Phillip Fielder, P.E., Permits & Engineering Group Manager

THROUGH: Rick Groshong, Sr. Environmental Manager, Compliance and Enforcement

THROUGH: Phil Martin, P.E., Engineering Manager, Existing Source Permits Section

THROUGH: Jian Yue, P.E., New Source Permits Section

FROM: Iftekhar Hossain, P.E., New Source Permits Section

SUBJECT: Evaluation of Permit Application No. **2016-0190-TVR2**
Targa Pipeline Mid-Continent, L.L.C.
Velma Gas Plant (Facility ID: 1509)
Latitude: 34.46149° N; Longitude: 97.69046° W
Section 23, Township 1S, Range 5W, Stephens County, Oklahoma
Location: 1 mile west of Velma on old Highway 7, south side of the road.

SECTION I. INTRODUCTION

Targa Pipeline Mid-Continent, L.L.C. (Targa) has applied for renewal of the Part 70 operating permit for their Velma Gas Plant (SIC 1321) located in Stephens County, Oklahoma. The facility is currently operating under Permit No. 2011-101-TVR (M-2) issued on June 13, 2016. Since the issuance of the said permit, Targa has submitted an application (#2011-101-TVR (M-3)) for a minor modification on October 27, 2015. As part of the Part 70 operating permit renewal process, this minor modification will also be addressed and incorporated into this permit.

Thermal Oxidizer (TO-1) Project:

In Permit Application No. 2011-101-TVR (M-3), the applicant requested a minor modification to their existing Part 70 operating permit to add a thermal oxidizer (TO-1) to control some of the off-gases from the New V-100 and the V-60 amine units. The New V-100 and the V-60 amine units are already subject to NSPS Subpart LLL. The off-gases from these units, if routed to the TO-1, will still have only the record-keeping requirements under NSPS Subpart LLL. Therefore, it is not a modification under NSPS Subpart LLL.

Emissions at the TO-1 are generated by the combustion of three gas streams: waste gas from the amine units, assist gas to ensure proper combustion, and pilot gas. NO_x, CO, VOC, and SO₂ emissions result from the combustion of these gases. The emissions calculations for TO-1 are included in EUG-2. TO-1 increased NO_x emissions by 16.15 TPY, CO emissions by 19.36 TPY, VOC emissions by 1.60 TPY, and SO₂ emissions by 26.92 TPY. The facility is not a PSD source and the emission increases will not make the facility a PSD source. The emission

increases of each criteria pollutant is less than 100 TPY. Therefore, Oklahoma BACT or modelling are not required. Installation of TO-1 is not considered a modification under NSPS, PSD, or NESHAP (Title I of the Act). The facility therefore qualified as a minor modification, classified as Tier I, and no construction permit was required.

Since the facility emits more than 100 TPY of a regulated pollutant, it is subject to Part 70 permitting requirements and its renewal process needs to go through **Tier II** permitting category. Therefore, public notice and EPA review will be required. Emission units (EUs) have been arranged into Emission Unit Groups (EUGs) as shown in the "Equipment" section at SECTION III. Field-grade natural gas is the primary fuel with the engines being operated continuously.

SECTION II. FACILITY DESCRIPTION AND HISTORICAL OVERVIEW

FACILITY DESCRIPTION

Process Description

The Velma Gas Plant is a 160 MMSCFD natural gas processing facility comprised of two separate cryogenic plants. The V-100 is a 100 MMSCFD gas plant that was built in 1977 and is comprised of inlet compression, two natural gas amine units (V-100 Legacy and V-100 Inlet), a TEG glycol dehydration unit, mole sieve beds, a cryogenic process, a product amine unit, and discharge compression. Inlet gas consists of three, East Doyle, Ketchum, and MTV, high pressure (HP) gas streams and two, East and West, low pressure (LP) gas streams. The H₂S content of each stream varies, but the East Doyle stream has 1-2 ppm, the Ketchum is 3-4 ppm, the MTV stream is 2-3 ppm, the East stream is 1400 ppm, and the West stream has 1200 ppm. The V-60 is a 60 MMSCFD gas plant that was built in 2012 and is comprised of a natural gas amine unit, mole sieve beds, a cryogenic process, and discharge compression. The inlet gas for the V-60 plant only comes from the MTV natural gas stream. Additionally, there is a condensate stabilization system onsite.

V-100 Unit

Inlet gas for the V-100 processing plant consists of the east and west LP gas streams that are commingled and sent through one of two inlet scrubbers to remove liquids. The liquids generated are sent to the atmospheric Slop Oil Tanks, T-6 and T-7, before being pumped through the Gun Barrel oil/water separator. Condensate from the oil/water separator is stored in Sour Tanks T-1 and T-2, while the water is stored in Produced Water Tank T-3. Tanks T-1, T-2, and T-3 are controlled by a vapor recovery unit (VRU) that returns the vapors back to the LP inlet. After exiting the inlet scrubber the natural gas stream is then compressed by three electric driven 4-stage inlet compressors (K600, K610, and K620). At the discharge of the third stage, 300 psi, the natural gas is sent to the V-100 Legacy amine unit. In the amine process, the gas stream passes through the contactor vessel where CO₂ and H₂S are absorbed by the amine. The rich amine is sent through a flash tank where off-gases are sent back to the LP inlet. Regeneration of the amine occurs by heating the rich amine stream using H-101, a natural gas-fired 16.84 MMBTUH heater. The amine still vent emissions are sent through a cooler where condensed water is sent back to the still as reflux and the acid gas stream, made up of primarily CO₂ and H₂S, is sent to the acid gas injection well through one of two acid gas compressors. The natural

gas stream exiting the amine unit is sent back to the fourth stage suction of the inlet compressors where the gas is boosted to 750 psi and commingled with the East Doyle HP gas stream.

Before being commingled with the LP streams, the East Doyle gas is sent through a HP slug catcher where the liquids generated are sent to tank T-25. After the streams are commingled, the natural gas is sent through an inlet scrubber where liquids generated are also sent to tank T-25. Flash gas vapors from tank T-25 are returned to the LP inlet for processing. The gas stream is sent onto the triethylene glycol dehydration process. In the dehydration process, gas passes through a contactor vessel where water is absorbed by the glycol. The rich glycol goes through a series of glycol exchangers prior to entering the glycol flash tank. Vapors generated in the flash tank are routed to the inlet first stage suction header and the rich glycol continues to the dehydrator reboiler where heat is used to boil off the water. The heat is supplied by hot oil from H-2, a natural gas fired 10.70 MMBTU/hr heater. The water vapor boiled off of the rich glycol stream exits the system via the glycol dehydrator still vent, which utilizes a cooler to capture small amounts of BTEX compounds that are inadvertently boiled off with the water vapor. The water is routed to tank T-25, while the non-condensable constituents from the condenser are further routed to the east LP inlet header.

After the glycol dehydrator, the LP and East Doyle natural gas stream is commingled with the MTV gas stream and sent to the V-100 Inlet amine treater. In the amine process, the gas stream passes through the contactor vessel where CO₂ and, inadvertently, H₂S are absorbed by the amine. The rich amine is sent through a flash tank where off-gases are sent back to the LP inlet. Regeneration of the amine occurs by heating the rich amine stream using hot oil heated by H-22, a natural gas-fired 25.6 MMBTUH heater. The amine still vent emissions are sent through a cooler where condensed water is sent back to the still as reflux and the acid gas stream, made up of primarily CO₂ and H₂S, is sent to the thermal oxidizer for destruction.

The commingled natural gas stream then moves through the mole sieve dehydration beds to further reduce water. The mole sieve beds are periodically regenerated using heated dry residue gas from the plant. The gas is heated using H-760, a natural gas-fired 4.20 MMBTUH heater. The regeneration gas is then sent through a separate glycol dehydration contactor to remove water that was vaporized in the mole sieve beds. The rich glycol is regenerated on the same skid as the glycol dehydration unit previously discussed. The natural gas stream exiting the contactor is then either used for fuel in the V-100 plant or sent to the first stage suction of the residue compressors and discharged from the plant.

Once the natural gas stream has moved through the mole sieve beds, it goes through the cryogenic process, including a propane chiller, expanders, and demethanizer tower, where natural gas liquids (NGL) are generated. The NGLs are sent to the plant product amine unit to remove CO₂ and, inadvertently, H₂S. The liquids enter the amine contactor and the rich amine moves to the flash tank where off gases are sent back to the LP inlet. The amine is then sent through a reboiler where hot oil is used to regenerate the amine. The hot oil is heated by H-760, a natural gas-fired 4.20 MMBTUH heater. The acid gas stream from the amine regeneration process is sent to the thermal oxidizer. The NGLs are placed into a pipeline and the natural gas stream is compressed by electric driven natural gas compressors (K630, K640, K-690 and K-695) and then sent to one of three sales lines.

V-60 Unit

Inlet gas for the V-60 processing plant consists solely from natural gas coming from the MTV line. The natural gas and condensate liquids enter a series of slug tubes where liquids are sent to tank T-24. The flash, working, and breathing vapors produced in tank T-24 are routed back to the LP inlet of the plant. The natural gas moves into an inlet scrubber to remove more liquids. The gas is then moves to the amine unit.

In the amine process, the gas stream passes through the contactor vessel where CO₂ and, inadvertently, H₂S are absorbed by the amine. The rich amine is sent through a flash tank where off gases are sent back to the LP inlet. Regeneration of the amine occurs by heating the rich amine stream using hot oil that is heated using H-4010, a natural gas-fired 10.90 MMBTUH heater. The amine still vent emissions are sent through a cooler where condensed water is circulated back to the still as reflux and the acid gas stream, made up of primarily CO₂ and H₂S, is sent to the thermal oxidizer.

After the amine unit, the natural gas stream is sent to the mole sieve dehydration beds to further reduce water. The mole sieve beds are periodically regenerated using inlet gas that is heated using H-4020, a natural gas-fired 9.30 MMBTUH heater. The regeneration gas is then sent through a cooler before entering the regeneration gas scrubber. Liquids generated in the scrubber are routed to the flash tank, while the gas is sent back to the inlet of the amine unit for processing.

Once the natural gas stream has moved through the mole sieve beds, it goes through the cryogenic process, including a propane chiller, expanders, and demethanizer tower, where natural gas liquids (NGL) are generated. The NGLs are placed into one of two pipelines and the natural gas stream is compressed by electric driven natural gas compressors (695B, 695C, and 695D) and then sent to one of three sales lines.

Condensate Stabilization and Condensate Storage Tanks

Liquids that are separated in the MTV slug catcher are stored in tanks T-23 and T-24, while liquids from the East Doyle slug catcher, the V-60 liquid dumps, and the V-100 liquid dumps are stored in tank T-25 prior to being processed by the condensate stabilizer. The liquids are routed through a condensate preheater prior to being send to the condensate stabilizer. The heat for the condensate preheater is supplied by hot oil from H-2, a natural gas-fired 10.70 MMBTUH heater. Liquids from the condensate stabilizer are then stored in T-35, T-36, and T-37 prior to being transferred to tanks T-4, T-5, T-11, and T-12 where they are trucked off-site for sale. Vapors from tanks T-4, T-5, T-11, and T-12 are controlled by a vapor recovery unit (VRU). The vapors generated during the stabilization process, vapors from tanks T-35, T-36, T-37, and the vapors collected by the VRU are routed back to the LP inlet of the plant.

Field Scrubber Liquid Unloading

Some condensate and produced water liquids generated in the field are brought to the gas plant by truck to be separated and stabilized. Field liquids are unloaded in tank T-8 and free flow to Slop Oil Tanks T-6 and T-7 prior to being separated in the Gun Barrel oil/water separator as

described above. For tracking purposes, the throughput of tank T-8 has been made equal to the throughput of tanks T-6 and T-7.

Acid Gas Control During Maintenance, Emergency, and Upset

Periodically, each acid gas control device must be taken down for maintenance or may unexpectedly experience an emergency shutdown. During these types of events, a secondary plan has been put into place so that the acid gas is not vented directly to the atmosphere. For the V-100 Legacy acid gas, a couple of options have been put into place. Shutdown for acid gas compressor maintenance will require the acid gas being diverted to the second acid gas compressor with continuous flow to the acid gas injection well. If both acid gas compressors are inoperable during an emergency event, the acid gas will be diverted to the existing acid gas flare for destruction.

The remaining amine units, V-100 Inlet and V-60, have a separate set of secondary plans for acid gas control. When the need to take down the thermal oxidizer for maintenance occurs or if the thermal oxidizer suddenly goes offline in an emergency, then 600 million cubic feet of the acid gas will be diverted to the injection well and the remaining acid gas will be sent to the existing acid gas flare. Lastly, in the event of a full power failure the gas plant emergency shutdown valves (ESD) will automatically close and all acid gas streams will be diverted to the acid gas flare until plant startup can be initiated.

HISTORICAL OVERVIEW

The Velma Gas Plant was originally constructed in 1948 by Skelly Oil Company as lean oil, liquid extraction process plant. The Velma Gas Plant also included some natural gas sweetening capabilities. Getty Oil Company, a Delaware Corporation, purchased and took over the Velma Plant on January 31, 1977. In 1984, the Getty Oil plant was purchased by Texaco Inc. and the Velma Plant was consolidated into Texaco Exploration and Production Inc., Texaco's wholly owned subsidiary. In 1991 Texaco added the Sulfur Recovery Unit, Tail Gas Incinerator, and Amine Reboiler. Spectrum Field Services, Inc. purchased the plant July 14, 2000.

Spectrum then filed a "Minor Modification" request on September 2, 2003, to add a glycol dehydration unit. The glycol dehydration unit was installed to remove moisture from the gas used to dehydrate the mole sieve beds.

In March of 2004, Spectrum filed a "Minor Modification" to remove the existing sulfur recovery unit which included a tail gas incinerator. Spectrum also requested to install an acid gas compressor powered by an electric motor that would send the acid gas to a recently constructed acid gas injection well.

In July of 2004, Atlas Pipeline Partners, L.P. Mid-Continent acquired Spectrum Field Services, Inc. and changed the name to Spectrum Field Services, L.L.C. Then,

- (i) In August of 2004, Spectrum requested to install another propane refrigeration electric compressor for additional propane refrigeration in the plant and associated fugitive components.

- (ii) In early October 2004, Spectrum requested to install a temporary 1,072-hp Natural Gas Compressor, type, Waukesha 5108 GL engine, powered by a gas motor and associated fugitive components.
- (iii) Later in October 2004, Spectrum then requested to install a 2,500-hp electric driven residue compressor, to take the place of the temporary, gas powered compressor mentioned above and associated fugitive components. The temporary compressor and its associated fugitive components were removed on April 30, 2005.

The company name was changed to Atlas Pipeline Mid-Continent, LLC (Atlas), effective January 1, 2005. Atlas has been acquired by Targa Pipeline Mid-Continent LLC (Targa) on March 2, 2015.

SECTION III. EQUIPMENT

The Velma Gas Plant operates eleven (11) compressors powered by electric motors. There are also two (2) acid gas compressors with an electric motor that compresses the acid gas before sending it to an injection well. The plant uses a natural gas-fired boiler to heat water and make steam (B-2 New). Process and hot oil heaters include H-2, H-22, H-101, H-760, H-4010, and H-4020. Natural gas is dehydrated using a glycol absorption system and the glycol is regenerated using hot oil.

Similar types of emissions units have been grouped together as emissions unit groups (EUGs) to facilitate the tracking of the emissions units. The following tables show the listing of all equipment at the facility.

Natural Gas Fired Heaters and Boilers, subject to NSPS, Subpart Dc (EUG 1A)

EU	Point	Equipment	Capacity (MMBTUH)	Serial #	Install/ Modify Date
H-2	P-68	Inlet Glycol Reboiler	10.70	12107323-0011-1	2011
H-22	P-67	Treater and Stabilizer Heater	25.60	11106390-003-1	11/2011
H-4010	P-66	Hot Medium (Oil) Heater	10.90	11-652044-1	11/2011

Natural Gas Fired Heaters and Boilers, exempt from NSPS, Subpart Dc (EUG 1B)

EU	Point	Equipment	Capacity (MMBTUH)	Serial #	Install/ Modify Date
H-101	P-44	Amine Reboiler	16.84	91-014	1991

Flares (EUG 2)

EU	Point	Equipment	Install/Modify Date
AGF	P-40	Acid Gas Flare	1977
MEF	P-42	Main Emergency Flare	Pre 1970
WEF	P-70	West Emergency Flare	Unknown
TO-1	TO-1	Thermal Oxidizer	2016

Tanks (EUG 3)

EU	Point	Contents	Capacity (bbl.)	Throughput (bbl.)	Installed Date
T-1*	P-45	Scrubber Oil Tank #1	500	--	8/1979
T-2*	P-46	Scrubber Oil Tank #2	500	--	1/1996
T-3*	P-71	Produced Water Tank	500	--	1996
T-4A*	P-57	Stabilized Condensate	400	--	1999
T-5A*	P-58	Stabilized Condensate	400	--	1999
T-11*	P-11	Stabilized Condensate	400	--	2008
T-12*	P-12	Stabilized Condensate	400	--	2008
T-35*	P-63	Stabilized Condensate-Pressurized	714	--	2004
T-36*	P-62	Stabilized Condensate-Pressurized	714	--	2004
T-37*	P-72	Stabilized Condensate-Pressurized	357	--	1948
T-23*	P-13	Condensate-Pressurized	42,500 gal	--	1948
T-24*	P-14	Condensate-Pressurized	42,500 gal	--	1948
T-25*	P-15	Condensate-Pressurized	42,500 gal	--	1948
T-6	P-59	VOC/Water	394	80,000	1999
T-7	P-60	VOC/Water	394	80,000	1999
T-8	P-61	Field Scrubber Liquids	400	160,000	2008

* These tanks shall be controlled by a vapor recovery system that eliminates emissions by routing them back into the plant inlet. There is no limit on throughput for these tanks.

Maintenance Engine, subject to NSPS, Subpart IIII (EUG 4A)

EU	Point	Description	Function	Mfg Date
M-1	P-69	250-hp Caterpillar C7 DITA – diesel fired	Fire pump, cleaning, and maintenance	1/2012

Maintenance Engine, subject to NESHAP, Subpart ZZZZ (EUG 4B)

EU	Point	Description	Function	Mfg Date
M-2	P-70	190-hp Waukesha F817 GU – natural gas fired	Fire pump, cleaning, and maintenance	9/1972

Truck Loading (EUG 5)

EU	Point	Contents	Installed Date
TL-1	P-55	Truck Loading (Stabilized Condensate)	1948

Fugitive VOC Leakage Sources (EUG 6)

EU ID#	Service	Source Description	Number of Units
Fugitives (FUG)	Gas/Vapor	Valves	2723
		Pump Seals	0
		Other	100
		Connectors/Flanges	6808
		Compressors	12
	Light Liquid	Valves	1996
		Pump Seals	25
		Other	38
		Connectors/Flanges	4991
		Compressors	0

Insignificant Activities (EUG 7)

EU	Emission Unit
Compressors	Blow Down Emissions
H-760	4.2 MMBTUH Hot Oil Heater
B-2	6.3 MMBTUH Boiler
H-4020	9.3 MMBTUH Hot Oil Heater
T-1	Scrubber Oil Tank #1
T-2	Scrubber Oil Tank #2
T-3	Produced Water Tank
T-4A	Stabilized Condensate
T-5A	Stabilized Condensate
T-11	Stabilized Condensate
T-12	Stabilized Condensate
T-35	Stabilized Condensate-Pressurized
T-36	Stabilized Condensate-Pressurized
T-37	Stabilized Condensate-Pressurized
T-23	Condensate-Pressurized
T-24	Condensate-Pressurized
T-25	Condensate-Pressurized
Ancillary Tanks	Antifreeze, Hot Oil, TEG, Amine, Lube Oil, Propane, Used Oil, Diesel, Methanol

Stack Parameters

EU	Point	Source	Number Stacks	Height (feet)	Diameter (feet)	Flow (acfm)	Temp. (deg F)
H-4020	P-65	Regeneration Gas Heater	1	16	2.0	4,222	700
H-4010	P-66	Hot Medium (Oil) Heater	1	16	2.0	4,949	700
H-22	P-67	Treater and Stabilizer Heater	1	17	2.0	11,622	700
H-2	P-68	Hot Oil Heater	1	15.5	2.0	4,858	700
B-2	P-38	Plant Boiler	1	24	1.3	2,491	800
AGF	P-40	Acid Gas Flare	1	170	1.0	243	1,832
MEF	P-42	Main Emergency Flare	1	112	2.3	NA	1,832
WEF	P-70	West Emergency Flare	1	N/A	N/A	N/A	N/A
H-101	P-44	Amine Reboiler	1	25	3.3	7,645	250
H-760	P-64	Glycol Dehydration Reboiler	1	20.42	1.0	4,028	347

SECTION IV. AIR EMISSIONS

The emission units for the facility have been grouped for convenience. The following is a brief description of each emission unit group (EUG).

EUG 1 - Process Heaters and Boilers

EUG 1 consists of EUG 1A (subject to NSPS, Subpart Dc) and EUG 1B (exempt from NSPS, Subpart Dc).

The emissions from the 0.3 - 100 MMBTUH capacity heaters and boilers in EUG 1A, EUG 1B, and several “insignificant activities” were obtained from Section 1.4 (Natural Gas Combustion) in AP-42 (7/98). Table 1.4-1 contains emission factors for NO_x and CO. Table 1.4-2 provides VOC, SO₂ and PM (filterable and condensable) emission factors. Table 1.4-3 contains emission factors for total organic compounds.

Emissions from Natural Gas Fired Heaters (EUG 1A and EUG 1B)

EU#	Emission Units	NO _x		CO		VOC		PM		SO ₂	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
H-2	Hot Oil Heater	1.05	4.59	0.88	3.86	0.06	0.25	0.08	0.35	0.01	0.03
H-22	Hot Oil Heater	2.51	10.99	2.11	9.23	0.14	0.60	0.19	0.84	0.02	0.07
H-4010	Hot Oil Heater	1.07	4.68	0.90	3.93	0.06	0.26	0.08	0.36	0.01	0.03
H-101	Direct Fired Heater	1.65	7.23	1.39	6.07	0.09	0.40	0.13	0.55	0.01	0.04

EUG 2A - Flares

This group includes the acid gas flare, main emergency flare, and the west emergency flare. There are no significant amounts of HAPs associated with these units. Acid gas from the V-100 Legacy, V-100 Inlet, and V-60 gas treating amine units only goes to the acid gas flare during emergency or upset conditions. Acid gas from the Product Amine System is routed to the acid gas flare (AGF) all the times for combustion.

The following table shows the different amine units and destination of the exhaust gas under normal operations, during compressor maintenance, and during upset/malfunctioning conditions.

Amine Unit Name	Unit Description	Normal Operation	Compressor Maintenance	Upset/ Malfunction	Max. H ₂ S Conc.	Gas/ Liquids Throughput	AGF* SO ₂ Emission
		Exhaust goes to					
Legacy V-100	Treats acid gas	Acid Gas Well	Acid Gas Well	AGF	1400 ppm	20 MMSCFD	100.00 lb/hr
New V-100	New amine unit. Treats acid gas	Acid Gas Well	AGF	AGF	4 ppm	100 MMSCFD	2.81 lb/hr
V-60	Treats acid gas.	Acid Gas Well	AGF	AGF	4 ppm	60 MMSCFD	1.69 lb/hr

**As per OAC 252:100-31-26(2), the cumulative total of SO₂ emissions from all amine units to the AGF and/or TO-1 must remain below 100 lb/hr.*

The actual calculations of flare emissions assume 100% efficiency of conversion of H₂S to SO₂. Flare emission calculations (in lb/hr) are based on the flow to the flares and the sulfur content of the acid gas.

Flares (EUG-2A)

EU#	Emission Units	NO _x		CO		VOC		SO ₂	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
AGF	Acid Gas Flare	--	5.00	--	13.21	--	0.28	100*	85.12
MEF	Main Emergency Flare	--	10.07	--	26.61	--	7.80	--	9.17
WEF	West Emergency Flare	--	10.14	--	26.80	--	8.83	--	0.19

* During acid gas compressor maintenance activities, the cumulative total of SO₂ emissions from the Acid Gas Flare and/or TO-1 must remain below 100 lb/hr.

EUG 2B – Thermal Oxidizer (TO-1)

Potential emissions of NO_x and CO from the thermal oxidizer (TO-1) were calculated using Waste/Assist factors from manufacturer (0.25 lb/MMBtu NO_x and 0.30 lb/MMBtu CO), VOC and H₂S emissions were calculated from mass balance using ProMax software. SO₂ emissions calculations assume 100% conversion of H₂S. The emission factor for pilot burner was taken from AP-42 (7/98) Tables 1.4-1. Under no circumstances, shall the cumulative emissions from AGF and/or TO-1 exceed 100 lb/hr SO₂, (2-hour average).

Pollutants	TO-1 Emissions			Pilot Emissions			Total Emissions	
	Net Flow Rate = 14.71 MMBtu/hr			Net Flow Rate = 0.10 MMBtu/hr			Lb/hr	TPY
	lb/MMBtu	Lb/hr	TPY	lb/MMBtu	Lb/hr	TPY		
NO _x	0.25	3.68	16.10	9.80E-02	0.01	0.04	3.69	16.15
CO	0.30	4.41	19.33	8.24E-02	<0.01	0.04	4.42	19.36
VOC	Mass Balance	0.37	1.60	5.39E-03	<0.01	<0.01	0.38	1.60
H ₂ S	Mass Balance	3.27	14.32	---	---	---	3.27	14.32
SO ₂	H ₂ S Conv.	---	26.92	5.88E-04	---	<0.01	100*	26.92

*As per OAC 252:100-31-26(2), the cumulative total of SO₂ emissions from all amine units to the AGF and/or TO-1 must remain below 100 lb/hr.

EUG 3 - Tanks

This group includes scrubber oil tanks #1 and #2, loading tanks, and wastewater tanks.

Calculations for T-1 and T-2 were based on 1995 emissions inventory calculations. VOC emissions from the gasoline tanks were estimated using TANKS4 (Based on AP-42) computer model. The unleaded and raw gasoline tanks are currently idle.

Tanks (EUG-3)

EU#	Emission Unit	VOC Emissions	
		lb/hr	TPY
T-1*	Sour Tank	--	--
T-2*	Sour Tank	--	--
T-3*	Produced Water Tank	--	--
T-4A*	Stabilized Condensate Tank	--	--
T-5A*	Stabilized Condensate Tank	--	--

EU#	Emission Unit	VOC Emissions	
		lb/hr	TPY
T-11*	Stabilized Condensate Tank	--	--
T-12*	Stabilized Condensate Tank	--	--
T-35*	Stabilized Condensate Tank	--	--
T-36*	Stabilized Condensate Tank	--	--
T-37*	Stabilized Condensate Tank	--	--
T-23*	Pressurized Condensate Tank	--	--
T-24*	Pressurized Condensate Tank	--	--
T-25*	Pressurized Condensate Tank	--	--
T-6	Slop Tanks	1.01	4.42
T-7	Slop Tanks	1.01	4.42
T-8	Field Scrubber Liquids Tank	1.91	8.38
Subtotal		3.93	17.22

* These tanks shall be controlled by a vapor recovery system that eliminates emissions by routing them back into the plant inlet. There is no limit on throughput for these tanks.

EUG 4 – Maintenance Engines

EUG 4 consists of EUG 4A (subject to NSPS, Subpart IIII) and EUG 4B (subject to NESHAP, Subpart ZZZZ).

These engines are used in conjunction with water pumps that are used primarily for fire water, cleaning, and maintenance. Emissions are based on manufacturer’s data and AP-42 factors.

Maintenance Engines (EUG 4A and EUG 4B)

EU	Emission Unit	NOx		CO		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
M-1	Caterpillar C7 DITA	0.83	3.63	0.38	1.68	0.15	0.64
M-2	Waukesha F817 GU	0.65	2.87	0.07	0.29	0.05	0.21

EUG 5 - Truck Loading Operations

This group consists of the truck loading of condensates and associated emissions from the truck loading relief vent. Fugitive VOC emissions from tank truck loading are based on AP-42 (1/95), Section 5.2.2, titled “VOC Emission Factors for Gasoline Loading Operations”, Table 5.2-2.

Fugitive VOC Emissions from Tank Truck Loadings (EUG-5)

Emissions Unit	Throughput		VOC Emission	
	bbl/month	gallon/yr	lb/hr	TPY
Truck Loading (Stabilized Condensate)	19,841	10,000,000	6.93	30.35

EUG 6 - VOC Components Fugitive Emissions

This group includes all the valves, flanges, connectors, compressors, open-end lines, etc. in the facility. These are all potential sources of leaking volatile organic compounds (VOC).

The method used to estimate VOC fugitive equipment leaks from the existing equipment was found in the EPA Emission Standards Division’s document EPA-453/R-95-017 1995 Protocol

for Equipment Leak Emission Estimates, November 1995. Emissions estimates are lower than the previous permit, but no numerical emission limit will be established.

Fugitive Emissions (EUG-6)

EU	Emission Unit	VOC Emissions	
		lb/hr	TPY
Plant	Fugitive Sources	5.64	28.64

Summary of Total Air Emissions Post Modifications

EU ID#	NOx		CO		VOC		SO ₂		PM	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
M-1	0.83	1.68	0.38	1.68	0.15	0.64	0.45	1.99	0.08	0.36
M-2	0.65	2.87	0.07	0.29	0.05	0.21	<0.01	<0.01	0.01	0.06
H-2	1.05	4.59	0.88	3.86	0.06	0.25	0.01	0.03	0.08	0.35
H-22	2.51	10.99	2.11	9.23	0.14	0.60	0.02	0.07	0.19	0.84
H-101	1.65	7.23	1.39	6.07	0.09	0.40	0.01	0.04	0.13	0.55
H-4010	1.07	4.68	0.90	3.93	0.06	0.26	0.01	0.03	0.08	0.36
H-4020	0.91	3.99	0.77	3.35	0.05	0.22	0.01	0.02	0.07	0.30
H-760	0.41	1.80	0.35	1.51	0.02	0.10	<0.01	0.01	0.03	0.14
B-2	0.62	2.71	0.52	2.27	0.03	0.15	<0.01	<0.01	0.05	0.21
T-1, T-2	--	--	--	--	--	--	--	--	--	--
T-4, T-5, T-11, T-12	--	--	--	--	--	--	--	--	--	--
T-6, T-7	--	--	--	--	2.02	8.83	--	--	--	--
T-8	--	--	--	--	1.91	8.38	--	--	--	--
TL-1	--	--	--	--	6.93	30.35	--	--	--	--
MEF	2.27	9.92	4.52	19.81	1.77	7.80	2.09	9.17	<0.01	<0.01
WEF	14.26	15.62	28.47	31.17	12.59	13.79	13.25	0.29	<0.01	<0.01
AGF*	0.11	0.50	0.63	2.74	0.35	0.22	100.00	85.12	<0.01	<0.01
TO-1*	3.69	16.15	4.42	19.36	0.38	1.60		26.92	--	--
FUG	--	--	--	--	6.54	28.64	--	--	--	--
Totals	30.03	82.73	45.41	105.27	33.14	102.44	358.34	123.69	0.72	3.17

*As per OAC 252:100-31-26(2), the cumulative total of SO₂ emissions from all amine units to the AGF and/or TO-1 must remain below 100 lb/hr.

Hazardous Air Pollutants (HAPs)

Glycol Dehydration Unit

The glycol dehydration unit using glycol desiccants has the potential to emit benzene, toluene, ethyl benzene, xylenes, and n-hexane from the still vent stack which are regulated as hazardous air pollutants (HAPs). However, all discharges from the unit are recycled to the process. Even though the facility is not a major source for HAP, still it is subject to 40 CFR Part 63, Subpart HH as per Consent Order No. 05-084.

Greenhouse Gases (GHG)

The applicant has presented estimates of PTE for greenhouse gases (CO₂-equivalent) at this site. The facility-wide Greenhouse gas potential emissions estimated at 81,136 tons per year (TPY) CO₂e using the methods of 40 CFR Part 98 Subpart A, Table A-1. This demonstrates that the facility is not a PSD-major source for this pollutant.

SECTION V. INSIGNIFICANT ACTIVITIES

The plant also has various emission sources which are insignificant or trivial by definition. The sources in this group were categorized as insignificant/trivial activities based on the guidelines in the AQD Title V Permit Application workshop. Trivial activities include maintenance painting, degreasing, and welding, truck and personal vehicle traffic, emissions from the blowdown of compressors during maintenance and from upset conditions, the lube oil tank, and use of a corrosion inhibitor in the boiler.

1. Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBTUH heat input (commercial natural gas).
2. * Storage tanks with a capacity less than or equal to 10,000 gallons that store volatile organic liquids with a true vapor pressure less than or equal to 1.0 psia at maximum storage temperature. "Jim's Tank" is in this category along with lube oil and antifreeze tanks.
3. Activities that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant.
 - The cryogenic skid #1 was manufactured in 1977 and installed in 1978. It is not subject to NSPS Subpart KKK.
 - Also considered insignificant sources are the west plant (DOT) emergency flare and produced water tanks. There are insignificant amounts of HAPs associated with these units.

SECTION VI. OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions) [Applicable]
Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-2 (Incorporation by Reference) [Applicable]
This subchapter incorporates by reference applicable provisions of Title 40 of the Code of Federal Regulations. These requirements are addressed in the "Federal Regulations" section.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]
Primary Standards are in Appendix E and Secondary Standards are in Appendix F of the Air Pollution Control Rules. At this time, all of Oklahoma is in attainment of these standards.

OAC 252:100-5 (Registration, Emissions Inventory and Annual Operating Fees)[Applicable]
Subchapter 5 requires sources of air contaminants to register with Air Quality, file emission inventories annually, and pay annual operating fees based upon total annual emissions of regulated pollutants. Emission inventories have been submitted and fees paid for the past years.

OAC 252:100-8 (Permits for Part 70 Sources) [Applicable]
Part 5 includes the general administrative requirements for part 70 permits. Any planned changes in the operation of the facility which result in emissions not authorized in the permit and which exceed the "Insignificant Activities" or "Trivial Activities" thresholds require prior notification to AQD and may require a permit modification. Insignificant activities mean individual emission units that either are on the list in Appendix I (OAC 252:100) or whose actual calendar year emissions do not exceed the following limits:

- 5 TPY of any one criteria pollutant
- 2 TPY of any one hazardous air pollutant (HAP) or 5 TPY of multiple HAPs or 20% of any threshold less than 10 TPY for a HAP that the EPA may establish by rule

Emission limits for the facility are based on information in the permit application and Permit No. 97-227-TV (M-6).

OAC 252:100-9 (Excess Emissions Reporting Requirements) [Applicable]
Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for affirmative defense, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

OAC 252:100-13 (Prohibition of Open Burning) [Applicable]
Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-19 (Particulate Matter) [Applicable]
This subchapter specifies a particulate matter (PM) emissions limitation of 0.6 lb/MMBTU from fuel-burning equipment with a rated heat input of 10 MMBTUH or less and to 0.35 lb/MMBTU for fuel burning equipment larger than 10 MMBTUH but less than 100 MMBTUH. The heaters and boilers at the Velma Plant burn pipeline quality natural gas. Based on AP-42 (7/98), Section 1.4, PM emissions from the heaters and boiler will be 0.0076 lb/MMBTU. The permit requires the use of natural gas for all fuel-burning units to ensure compliance with Subchapter 19.

This subchapter also limits emissions of PM from industrial processes. Per AP-42 factors, there are no significant PM emissions from any other industrial activities at this facility.

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]
No discharge of greater than 20% opacity is allowed except for short-term occurrences that consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. When burning natural gas there is little possibility of exceeding the opacity standards.

OAC 252:100-29 (Fugitive Dust) [Applicable]
No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. The facility does not handle, store, or process aggregate

material and would not likely generate significant amounts of fugitive dust, thus it is not necessary to require specific precautions to be taken.

OAC 252:100-31 (Sulfur Compounds)

[Applicable]

Part 2 limits the ambient air impact of hydrogen sulfide (H₂S) emissions from any new or existing source to 0.2 ppm for a 24-hour average (equivalent to 280 µg/m³). Acid gas from the Legacy V-100, New V-100, and V-60 gas treating amine units only goes to the acid gas flare (AGF) during upset and malfunction conditions. The amine units will emit maximum of 2.63 lb/hr H₂S after flaring at AGF under worst case scenario (upset/malfunction conditions). Given the stack data for the AGF, with 98% conversion of H₂S in the flare, AERSCREEN modeling shows that this will result in a maximum ambient impact of approximately 2.12 µg/m³ on a 24-hour average, which is in compliance with this part. If New V-100 and V-60 gas treating amine units goes to the thermal oxidizer (TO-1), the exhaust gas will have 0.065 lb/hr H₂S. Given stack data for the TO-1, with 98% conversion of H₂S in the TO-1, AERSCREEN modeling shows that this will result in a maximum ambient impact of approximately 0.38 µg/m³ on a 24-hour average, which is in compliance with this part.

Part 5 limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of 1,000 BTU/SCF, this limit corresponds to fuel sulfur content of 1,203 ppmv. The permit requires the use of gaseous fuel with sulfur content less than 343 ppmv to ensure compliance with Subchapter 31. For liquid fuels the limit is 0.8 lb/MMBTU. The diesel engine is fired with low-sulfur diesel with a maximum sulfur content of 0.05 percent. AP-42 (10/96), Chapter 3.4, gives an emission factor of 1.01*S lb/MMBTU which for low sulfur diesel is approximately 0.05 lb/MMBTU. This emission rate is in compliance with the limitation of 0.8 lb/MMBTU. The permit will require the use of diesel with a maximum sulfur content of 0.05 % sulfur by weight for the diesel fired engines.

Part 5 requires removal or oxidation of hydrogen sulfide (H₂S) from the exhaust gas of any new petroleum or natural gas process equipment. This part allows direct oxidation of H₂S to sulfur dioxide (SO₂), without sulfur recovery, when the acid gas stream will contain no more than 0.54 long tons per day (LT/D) of sulfur (S). Alternatively, compliance with 0.54 LT/D can be demonstrated by establishing the emission rate of 100 lb/hr or less of SO₂ (2-hour average). The amine units (New V-100 and V-60) have the potential for sulfur production only 0.015 LT/D and 0.009 LT/D, respectively. Oxidation of the H₂S must be conducted in a system that assures at least a 95% reduction of the H₂S in the exhaust gases and that is equipped with an alarm system to signal non-combustion of the exhaust gases. Permit limits for the facility is therefore set to 100 lb/hr or less of SO₂ (2-hour average). All applicable requirements have been incorporated into the permit.

Subsequent to EPA's tightening of the National Ambient Air Quality Standard (NAAQS) for SO₂ in 2010, the state ambient air quality limits for SO₂ in OAC 252:100-31-7(a) were revoked effective June 15, 2012, because the revised SO₂ NAAQS is more protective of air quality. DEQ is currently reviewing its policy for how each facility that is not specifically required to model under the rule can demonstrate compliance with the NAAQS, and upon reaching a decision Velma may be required to perform modeling and submit the results to DEQ. At this time, no action is required.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]

This subchapter limits NO_x emissions from new fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to emissions of 0.2 lb of NO_x per MMBTU. There are no equipment items that exceed the 50 MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]

None of the following affected processes are located at this facility: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic cracking unit, or petroleum catalytic reforming unit.

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]

Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia at maximum storage temperature to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The VOL storage tanks subject to this part are operated with submerged fill pipe or bottom fill pipe.

Part 3 requires VOC loading facilities with a throughput equal to or less than 40,000 gallons per day to be equipped with a system for submerged filling of tank trucks or trailers if the capacity of the vehicle is greater than 200 gallons. The tank truck loading is subject to this requirement, and shall be equipped with a system for submerged filling.

Part 5 limits the VOC content of coatings from any coating line or other coating operation. This facility does not normally conduct coating or painting operations except for routine maintenance of the facility and equipment which is exempt.

Part 7 requires fuel-burning and refuse-burning equipment to be operated to minimize emissions of VOC. Temperature and available air must be sufficient to provide essentially complete combustion.

Part 7 requires all effluent water separator openings, which receive water containing more than 200 gallons per day of any VOC, to be sealed or the separator to be equipped with an external floating roof or a fixed roof with an internal floating roof or a vapor recovery system.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Applicable]

This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained, unless a modification is approved by the Director. Since no AOC has been designated there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [Applicable]

This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to the test date. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required

by this subchapter, an applicable rule, or permit requirement. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

The following Oklahoma Air Quality Rules are not applicable to this facility

OAC 252:100-11	Alternative Emissions Reduction	not requested
OAC 252:100-15	Mobile Sources	not in source category
OAC 252:100-17	Incinerators	not type of emission unit
OAC 252:100-23	Cotton Gins	not type of emission unit
OAC 252:100-24	Grain Elevators	not in source category
OAC 252:100-39	Nonattainment Areas	not in area category
OAC 252:100-47	Municipal Solid Waste Landfills	not in source category

SECTION VII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]
 Total facility emissions are less than the PSD major source threshold of 250 TPY for regulated pollutants, and the facility is not among the types of operations which are defined as “major sources” at an emissions level of 100 TPY.

NSPS, 40 CFR Part 60 [Subparts Dc, Kb, KKK, LLL, and IIII are Applicable]
Subpart A, 60.18, General Control Device Requirement, January 21, 1986.
 The acid gas flare and the main flare are not subject to this requirement because these flares are not used to comply with an applicable subpart under Part 60. The flares are only used in emergency/upset situations and not during normal operation.

Subpart Dc, Small Industrial-Commercial-Institutional Steam Generating Units. The affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 100 MMBTUH or less, but greater than or equal to 10 MMBTUH. This subpart requires only recordkeeping for gas-fired units.

- (1) The 10.7 MMBtu/hr heater (H-2) which replaced the existing 9.0 MMBtu/hr hot oil heater (H-1) is subject to this subpart.
- (2) The 10.9 MMBtu/hr (H-4010) hot medium (oil) heater is used for the new 60 MMscfd cryogenic plant. This heater is subject to this subpart.
- (3) The 25.6 MMBtu/hr (H-22) heater is used for inlet amine treater and the condensate stabilizer. This heater is also subject to this subpart.

The 9.3 MMBtu/hr heater (H-4020) is used as a regeneration (gas) heater for the new 60 MMscfd cryogenic plant. The applicability threshold for Subpart Dc is 10 MMBTUH. Therefore, this subpart is not applicable to this unit.

The replacement Boiler (B-2 New) has a capacity of 6.3 MMBTUH. The applicability threshold for Subpart Dc is 10 MMBTUH. Therefore, this subpart is not applicable to this unit.

The amine unit reboiler heater (H-101) was installed in 1991. Although it was constructed after June 9, 1989 and it has a rated heat input capacity greater than 10 MMBTUH; this unit does not meet the definition of steam generating unit (60.41c). This term does not include process heaters as defined in this subpart and, therefore, Subpart Dc is not applicable.

Subparts K, Ka, Kb, VOL Storage Vessels.

The gasoline tanks were built before the effective date of this subpart. The condensate tanks T-1 and T-2 are above the de minimis of 19,813-gallons for Subpart Kb. Tanks T-1 and T-2 are equipped with the closed vent systems and control device to collect all VOC vapors and gases discharged from the storage vessel to comply with Subpart Kb. All applicable requirements have been incorporated into the permit. The condensate tanks, T-4A, T-5A, T-11, and T-12, are smaller than 19,813-gallons; therefore they are not subject to this subpart.

Subpart GG, Stationary Gas Turbines. There are no turbines at this facility.

Subpart VV, Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. This facility is not a SOCOMI plant.

Subpart KKK, Equipment Leaks of VOC from Onshore Natural Gas Processing Plants. This subpart applies to onshore natural gas processing plants that commence construction or modification after January 20, 1984, and on or before August 23, 2011, and include: a compressor station, dehydration unit, field gas gathering system, or liquefied natural gas unit. "Natural gas processing plant" is defined as any site engaged in the extraction of natural gas liquids from field gas, fractionation of natural gas liquids, or both. The amine unit was installed in 1967 and subsequently reconstructed in 1991. This subpart is, therefore, applicable to the amine sweetening unit of the facility and requirements will be stated in the permit. The fugitives added in the 2003 Electrification Project and the August 2004 Electric Compressor Project are also subject to this subpart. The new 60 MMscfd cryogenic plant (Plant #2) is subject to this subpart.

Subpart LLL, Onshore Natural Gas Processing: SO₂ Emissions. This subpart sets standards for natural gas sweetening units constructed or modified after January 20, 1984, and requires facilities with a design capacity of less than 2 LT/D of H₂S in the acid gas (expressed as sulfur) to keep, for the life of the facility, a record demonstrating that the facility's design capacity is less than 2 LT/D of H₂S expressed as sulfur. The acid gas from the amine unit, Legacy V-100, is sent to the acid gas injection well at all times; therefore, it is not subject to this subpart. The other amine units (New V-100 and V-60) are subject to the record-keeping requirements because the potential for sulfur production at design capacity are only 0.015 LT/D and 0.009 LT/D, respectively.

Subpart IIII, Stationary Compression Ignition Internal Combustion Engines. This subpart affects stationary compression ignition (CI) internal combustion engines (ICE) based on power and displacement ratings, depending on date of construction, beginning with those constructed after July 11, 2005. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. The maintenance generator engine was manufactured after the effective date of this subpart; therefore, subject to this subpart. The applicant has submitted manufacturer's engine emissions certification. As a result, the diesel-

fired maintenance generator engine (M-1) is exempt from conducting the NSPS Subpart III tests. All applicable requirements have been included into the permit.

Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI-ICE). This subpart promulgated emission standards for all new SI engines ordered after June 12, 2006, and all SI engines modified or reconstructed after June 12, 2006, regardless of size. The natural gas-fired maintenance generator engine (M-2) was manufactured before the effective date of this subpart; therefore, it is not subject to this subpart.

Subpart OOOO, Crude Oil and Natural Gas Production, Transmission, and Distribution. This subpart was signed April 17, 2012, and promulgated on August 16, 2012. This rule may affect the following sources that commence construction, reconstruction, or modification after August 23, 2011 as follows:

1. Each single gas well;
2. Single centrifugal compressors using wet seals that are located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment;
3. Reciprocating compressors which are single reciprocating compressors located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment;
4. Single continuous bleed natural gas driven pneumatic controllers with a natural gas bleed rate greater than 6 SCFH, which commenced construction after August 23, 2011, located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment and not located at a natural gas processing plant;
5. Single continuous bleed natural gas driven pneumatic controllers which commenced construction after August 23, 2011, and is located at a natural gas processing plant;
6. Single storage vessels located in the oil and natural gas production segment, natural gas processing segment, or natural gas transmission and storage segment;
7. All equipment, except compressors, within a process unit at an onshore natural gas processing plant;
8. Sweetening units located at onshore natural gas processing plants.

For each reciprocating compressor the owner/operator must replace the rod packing before 26,000 hours of operation or prior to 36 months. If utilizing the number of hours, the hours of operation must be continuously monitored. The new compressors have a construction date prior to August 23, 2011, and are not be subject to this subpart. Any other new or modified compressors will have to comply with this subpart.

Pneumatic controllers at a natural gas processing plant must have a bleed rate of zero. All new pneumatic controllers at this facility are supplied with instrument air.

Storage vessels constructed, modified or reconstructed after August 23, 2011, with VOC emissions equal to or greater than 6 TPY must reduce VOC emissions by 95.0 % or greater. All new or modified storage vessels will have to comply with this subpart.

The group of all equipment, except compressors, within a process unit at a natural gas processing plant must comply with the requirements of NSPS, Subpart VVa, except as provided in §60.5401. The 60 MMscfd cryogenic skid commenced construction prior to August 23, 2011,

and is not be subject to this subpart. All new or modified process units will have to comply with this subpart.

A sweetening unit means a process device that removes hydrogen sulfide and/or carbon dioxide from the sour natural gas stream. A sour natural gas stream is defined as containing greater than or equal to 0.25 grains sulfur per 100 standard cubic feet or 4 ppmv.

All new equipment under this modification was constructed before the effective date of this subpart. All applicable requirements have been included into the permit for future equipment.

NESHAP, 40 CFR Part 61 [Not Applicable]
 There are no emissions of any of the regulated pollutants: arsenic, asbestos, beryllium, benzene, coke oven emissions, mercury, radionuclides or vinyl chloride except for trace amounts of benzene. Subpart J, Equipment Leaks of Benzene, only applies to process streams which contain more than 10% benzene by weight. Analysis of Oklahoma natural gas indicates a maximum benzene content of less than 1%.

NESHAP, 40 CFR Part 63 [Subpart HH and Subpart ZZZZ are Applicable]
Subpart HH, Oil and Natural Gas Production Facilities. This subpart applies to affected emission points that are located at facilities which are major sources of HAPs and either process, upgrade, or store hydrocarbons prior to the point of custody transfer or prior to which the natural gas enters the natural gas transmission and storage source category. For purposes of this subpart natural gas enters the natural gas transmission and storage source category after the natural gas processing plant. If no natural gas plant is present, natural gas enters the natural gas transmission and storage source category after the point of custody transfer. This facility is not a major source of HAPs, but subject to this subpart because of EPA policy of “*once in, always in.*” This facility, therefore, requires compliance with all applicable requirements of this subpart.

Subpart HHH affects Natural Gas Transmission and Storage Facilities. Since this facility is a production facility, this subpart does not apply.

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart affects any existing, new, or reconstructed stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. The following table differentiates existing, new, or reconstructed units based on their construction dates.

	Construction/Reconstruction Dates	
	Engines >500 hp	Engines ≤ 500hp
Existing Unit		
Located at Major HAP Source	Before 12/19/02	Before 6/12/06
Located at Area HAP Source	Before 6/12/06	
New or Reconstructed Unit		
Located at Major HAP Source	On and After 12/19/02	On and After 6/12/06
Located at Area HAP Source	On and After 6/12/06	

The diesel-fired maintenance generator engine (M-1) is a new engine because it commenced construction after June 12, 2006, and it will meet the requirements of Subpart ZZZZ by complying with 40 CFR Part 60 Subpart IIII (for CI engines). The natural gas-fired maintenance generator engine (M-2), is an affected source under NESHAP, Subpart ZZZZ as existing source

and is expected to comply with the maintenance requirements. All applicable requirements have been incorporated into the permit.

Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters at major sources of HAPs. Subpart DDDDD was published in the Federal Register on January 31, 2013. This facility is a minor source of HAPs; therefore, not subject to this subpart.

CAM, 40 CFR Part 64

[Not Applicable]

Compliance Assurance Monitoring (CAM) published in the Federal Register on October 22, 1997, applies to any pollutant specific emission unit at a major source that is required to obtain a Title V permit, if it meets all of the following criteria:

- It is subject to an emission limit or standard for an applicable regulated air pollutant
- It uses a control device to achieve compliance with the applicable emission limit or standard
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant greater than major source thresholds

The amine unit uses an acid gas compressor to send acid gas to an injection well; therefore, it is not subject to this requirement.

Chemical Accident Prevention Provisions, 40 CFR Part 68

[Not Applicable]

This facility handles naturally occurring hydrocarbon mixtures at a natural gas processing plant and the Accidental Release Prevention Provisions are applicable to this facility. The facility was required to submit the appropriate accidental release emergency response program plan prior to June 21, 1999. Atlas Pipeline Mid-Continent, L.L.C. has submitted their plan which was given EPA Facility No. 1000 0002 7979. More information on this federal program is available on the web page: www.epa.gov/rmp.

Stratospheric Ozone Protection, 40 CFR Part 82

[Subpart A and F Applicable]

These standards require phase out of Class I & II substances, reductions of emissions of Class I & II substances to the lowest achievable level in all use sectors, and banning use of nonessential products containing ozone-depleting substances (Subparts A & C); control servicing of motor vehicle air conditioners (Subpart B); require Federal agencies to adopt procurement regulations which meet phase out requirements and which maximize the substitution of safe alternatives to Class I and Class II substances (Subpart D); require warning labels on products made with or containing Class I or II substances (Subpart E); maximize the use of recycling and recovery upon disposal (Subpart F); require producers to identify substitutes for ozone-depleting compounds under the Significant New Alternatives Program (Subpart G); and reduce the emissions of halons (Subpart H).

Subpart A, Production and Consumption Controls. This subpart identifies ozone-depleting substances and divides them into two classes. Class I controlled substances are divided into seven groups; the chemicals typically used by the manufacturing industry include carbon tetrachloride (Class I, Group IV) and methyl chloroform (Class I, Group V). A complete phase-out of production of Class I substances is required by January 1, 2000 (January 1, 2002, for methyl chloroform). Class II chemicals, which are hydrochlorofluorocarbons (HCFCs), are generally seen as interim substitutes for Class I CFCs. Class II substances consist of 33 HCFCs.

A complete phase-out of Class II substances, scheduled in phases starting by 2002, is required by January 1, 2030.

Subpart F, Recycling and Emission reduction. This subpart requires that any persons servicing, maintaining, or repairing appliances except for motor vehicle air conditioners; persons disposing of appliances, including motor vehicle air conditioners; refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment comply with the standards for recycling and emissions reduction.

Conditions are included in the standard conditions of the permit to address the requirements specified at § 82.156 for persons opening appliances for maintenance, service, repair, or disposal; § 82.158 for equipment used during the maintenance, service, repair, or disposal of appliances; § 82.161 for certification by an approved technician certification program of persons performing maintenance, service, repair, or disposal of appliances; § 82.166 for recordkeeping; § 82.158 for leak repair requirements; and § 82.166 for refrigerant purchase records for appliances normally containing 50 or more pounds of refrigerant.

SECTION VIII. COMPLIANCE

Tier Classification and Public Review

This application has been determined to be **Tier II** based on the request for renewal of a Part 70 operating permit. The permittee has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the application involves only land owned by the applicant. Information on all permit actions is available for review by the public in the Air Quality section of the DEQ Web page: <http://www.deq.state.ok.us/>.

The applicant will publish the “Notice of Filing Tier II Application” and the “Notice of Draft Tier II Permit” in a local newspaper, in Stephens County, Oklahoma. The notices will state that the application and the draft permit are available for public review at the local Public Library in Duncan, Oklahoma, and also at the Oklahoma Air Quality Division’s main office in Oklahoma City and on the Air Quality section of the DEQ web page at: www.deq.state.ok.us. The draft permit will be available for public review for 30 days. This facility is located within 50 miles of the Oklahoma-Texas border; the state of Texas will be notified of the draft permit.

Inspection

On June 27, 2016, a full compliance evaluation was conducted at this facility by Camas Frey, Environmental Programs Manager and Rodney Pesch, Environmental Programs Specialists, for the DEQ. The facility was represented by Austin Hawkins, Environmental Specialist, Darrin Martin, Senior Environmental Specialist, James Branscum, Area Manager, Danny Brooks, Plant Manager for Velma, and Shawn Remy, Plant 90 Supervisor represented Targa. Details of the inspection have been documented in the Full Compliance Evaluation Memorandum No. 07518. The required records are maintained on-site, at the Velma Gas Plant.

Fees Paid

Application fee for renewal of Part 70 operating permit of \$7,500.

SECTION IX. SUMMARY

The facility was constructed and operated as described in the permit application and supplemental information. Ambient air quality standards are not threatened at this site. There are no active Air Quality compliance or enforcement issues concerning this facility. Issuance of the operating permit is recommended, contingent on public review and the EPA review.

DRAFT

**PERMIT TO OPERATE
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS**

**Velma Gas plant
Atlas Pipeline Mid-Continent, LLC**

Permit No. 2016-0190-TVR2

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on February 11, 2016. The Evaluation Memorandum dated May 30, 2017, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein.

1. Points of emissions and emissions limitations for each point: [OAC 252:100-8-6 (a)]

EUG 1 – Natural Gas Fired Heaters and Boilers: The emissions limitations of the natural gas fired heaters and boilers are as follows:

EU#	Equipment	Capacity (MMBTUH)	NO _x		CO	
			lb/hr	TPY	lb/hr	TPY
H-2	Hot Oil Heater	10.7	1.05	4.59	0.88	3.86
H-22	Treater and Stabilizer Heater	25.6	2.51	10.99	2.11	9.23
H-4010	Hot Medium (Oil) Heater	10.9	1.07	4.68	0.90	3.93
H-101	Amine Reboiler	16.84	1.65	7.23	1.39	6.07

- A. EU# H-2, H-22, and H-4010 are subject to the NSPS, Subpart Dc, Small Industrial-Commercial-Institutional Steam Generating Units and shall comply with all applicable requirements including but not limited to the following:

- (1) The owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each calendar month. [§60.48c(g)(2)]

EUG 2A – Flares

EU#	Emission Units	NO _x		CO		VOC		SO ₂	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
AGF	Acid Gas Flare	--	5.00	--	13.21	--	0.28	100*	85.12
MEF	Main Emergency Flare	--	10.07	--	26.61	--	7.80	--	9.17
WEF	West Emergency Flare	--	10.14	--	26.80	--	8.83	--	0.19

* During acid gas compressor maintenance activities, the SO₂ emissions from the Acid Gas Flare and/or TO-1 must remain below 100 lb/hr.

EUG 2B – Thermal Oxidizer (TO-1)

EU#	Emission Units	NO _x		CO		VOC		SO ₂	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
TO-1	Thermal Oxidizer	--	16.15	--	19.36	--	1.60	100*	26.92

* During acid gas compressor maintenance activities, the SO₂ emissions from the Acid Gas Flare and/or TO-1 must remain below 100 lb/hr.

EUG 3 – Tanks

EU#	Emission Unit	Contents	Capacity (bbl)	Throughput (bbl)
T-1*	Sour Tank	Scrubber Oil	500	--
T-2*	Sour Tank	Scrubber Oil	500	--
T-3*	Produced Water Tank	Produced Water	500	--
T-4A*	Stabilized Condensate Tank	Condensate	400	--
T-5A*	Stabilized Condensate Tank	Condensate	400	--
T-11*	Stabilized Condensate Tank	Condensate	400	--
T-12*	Stabilized Condensate Tank	Condensate	400	--
T-35*	Stabilized Condensate Tank	Condensate	714	--
T-36*	Stabilized Condensate Tank	Condensate	714	--
T-37*	Stabilized Condensate Tank	Condensate	357	--
T-23*	Pressurized Condensate Tank	Condensate	1000	--
T-24*	Pressurized Condensate Tank	Condensate	1000	--
T-25*	Pressurized Condensate Tank	Condensate	1000	--
T-6	Slop Tanks	Water/Condensate	394	80,000
T-7	Slop Tanks	Water/Condensate	394	80,000
T-8	Field Scrubber Liquids Tank	Water/Condensate	400	160,000

* These tanks shall be controlled by a vapor recovery system that eliminates emissions by routing them back into the plant inlet. There is no limit on throughput for these tanks.

EUG 4 – Maintenance Engines: Emissions are from a diesel (M-1) and a natural gas (M-2) engine that drives water pumps used for fire, cleaning, and maintenance purposes.

EU#	Emission Unit	NOx		CO		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
M-1	Caterpillar C7 DITA	0.83	3.63	0.38	1.68	0.15	0.64
M-2	Waukesha F817 GU	0.65	2.87	0.07	0.29	0.05	0.21

EUG 5 – Truck Loading: The fugitive VOC emissions from tank truck loading are limited as follows:

Emission Unit	Throughput	VOC	
	gal/yr	lb/hr	TPY
Truck Loading (Stabilized Condensate)	10,000,000	6.93	30.35

EUG 6 – Fugitives Components: Fugitive VOC emissions are estimated based on existing equipment, but do not have a specific limitation.

EU ID#	Service	Source Description	Number of Units
Fugitives (FUG)	Gas/Vapor	Valves	2723
		Pump Seals	0
		Other	100
		Connectors/Flanges	6808
		Compressors	12
	Light Liquid	Valves	1996
		Pump Seals	25
		Other	38
		Connectors/Flanges	4991
		Compressors	0

2. The fuel-burning equipment shall be fired with pipeline grade natural gas or other gaseous fuel with a sulfur content less than 343 ppmv, except for the diesel fired engine. Compliance can be shown by the following methods: for pipeline grade natural gas, a current gas company bill; for other gaseous fuel, a current lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. The diesel fired engine shall only be fired with fuel oil with a maximum sulfur content of 0.0015% sulfur content by weight. Compliance can be shown by the following methods: for fuel oil, supplier's latest delivery ticket(s). Compliance for all types of fuels shall be demonstrated at least once per calendar year. [OAC 252:100-31]
3. The permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6 (a)]
4. Each engine at the facility shall have a permanent identification plate attached which shows the make, model number, and serial number. [OAC 252:100-43]
5. The Amine units (Legacy V-100, V-60, and the New V-100) shall be maintained and operated as follows:
 - (a) The acid gas from the Legacy V-100 shall be routed to the acid gas injection well at all times, including during maintenance operations.
 - (b) The acid gas from the New V-100 and V-60 natural gas amine treaters shall be routed to the acid gas injection well/thermal oxidizer, except during time of acid gas compressor/thermal oxidizer maintenance or malfunction in which case the acid gas from each treater shall be routed to the acid gas flare.
 - (c) During the acid gas compressor maintenance activities, only one of the two acid gas compressors shall be shutdown at a time.
 - (d) The flash tank gases from all the amine units shall be routed to the plant inlet.
 - (e) The emissions of H₂S to the acid gas flare shall be reduced at least by 95% by removal or by being oxidized to SO₂ prior to being emitted to the ambient air.
 - (f) Under no circumstances the cumulative emissions from AGF and/or TO-1 exceeds 100 lb/hr SO₂, (2-hour average). The following formula shall be used to calculate the SO₂ emissions:

$$\text{SO}_2 \text{ (lb/hr)} = \frac{(\text{Q}_{\text{inlet, MMSCFD}})(\text{C}_{\text{inlet}} - \text{C}_{\text{outlet, ppmv}})(64 \text{ lb SO}_2/\text{lbmol})}{(380 \text{ ft}^3/\text{lbmol})(24 \text{ hr/day})}$$

- (i) The permittee shall use stain tubes (or an equivalent method) to measure H₂S concentration with a first scale mark no larger than 1 ppmv. Testing shall be conducted each calendar quarter.
- (ii) The permittee shall track daily averaged throughputs of each inlet gas stream to the corresponding amine units for the calculation of cumulative actual SO₂ emissions, to be updated monthly.

6. The TEG dehydration unit shall be maintained and operated as follows:
 - (a) The glycol dehydration unit shall be equipped with a condenser/cooler with the off-gases from the still vent being vented through the condenser/cooler when the dehydration unit is operating.
 - (b) The uncondensed vapors from the condenser/cooler shall be routed back to the plant inlet or plant process equipment.
 - (c) The glycol dehydration unit shall be operated with a flash tank with vapors routed back to the plant inlet or plant process equipment.

7. The oil/water separator shall totally enclose its contents; all openings shall be sealed. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. The oil removal devices shall be gas-tight except when manual skimming, inspection, and/or repair is in progress. [OAC 252:100-37-37]

8. The permittee shall comply with the Standards of Performance for SO₂ Emissions from Onshore Natural Gas Processing, NSPS Subpart LLL, for all amine units. [40 CFR 60.640 to 60.648]
 - (a) Facilities that have a design capacity less than 2 long tons per day (LT/D) of hydrogen sulfide (H₂S) in the acid gas (expressed as sulfur) are required to keep, for the life of the facility, a record demonstrating that the facility's design capacity is less than 2 LT/D of H₂S expressed as sulfur. The facilities, however, are not required to comply with §§ 60.642 through 60.646.

9. The following records shall be maintained on-site to verify Insignificant Activities. No recordkeeping is required for those operations which qualify as Trivial Activities. [OAC 252:100-8-6 (a)(3)(B)]
 - (a) For crude oil and condensate storage tanks with a capacity of less than or equal to 420,000 gallons that store crude oil and condensate prior to custody transfer: records of capacity of the tanks and the amount of throughput (annual).
 - (b) For fluid storage tanks with a capacity of less than 39,894 gallons and a true vapor pressure less than 1.5 psia: records of capacity of the tanks and contents.
 - (c) For activities that have the potential to emit less than 5 TPY (actual) of any criteria pollutant: the type of activity and the amount of emissions from that activity (cumulative annual).
 - (d) Vapor pressures and capacities of all storage tanks with less than or equal to 10,000 gallons capacity that store volatile organic liquids with a true vapor pressure less than or equal to 1.0 psia at maximum storage temperature.

10. The permittee shall comply with the 40 CFR Part 60, Subpart Dc. The owner/operator shall comply with all applicable requirements of this subpart, for each affected facility including but not limited to:
 - (a) §60.40c Applicability and delegation of authority.
 - (b) §60.41c Definitions.
 - (c) §60.42c Standard for sulfur dioxide (SO₂).
 - (d) §60.43c Standard for particulate matter (PM).

- (e) §60.44c Compliance and performance test methods and procedures for sulfur dioxide.
 - (f) §60.45c Compliance and performance test methods and procedures for particulate matter.
 - (g) §60.46c Emission monitoring for sulfur dioxide.
 - (h) §60.47c Emission monitoring for particulate matter.
 - (i) §60.48c Reporting and recordkeeping requirements.
11. The permittee shall comply with the Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants NSPS Subpart KKK, for each affected facility located on-site, including but not limited to the following:
[40 CFR §60.630 to §60636]
- a. The owner/operator shall comply with the requirements of §60.482-1(a), (b), and (d) and §60.482-2 through §60.482-10 except as provided in §60.333. [§60.632(a)]
 - (1) The owner/operator shall demonstrate compliance with § 60.482-1 to 60.482-10 for all affected equipment within 180 days of initial startup which shall be determined by review of records, reports, performance test results, and inspection using methods and procedures specified in § 60.485 unless the equipment is in vacuum service and is identified as required by § 60.486(e)(5).
[§60.482-1(a), (b), & (d)]
 - (2) The owner/operator shall comply with the monitoring, inspection, and repair requirements, for pumps in light liquid service, of §60.482-2(a), (b), and (c) except as provided in §60.482-2(d), (e), (f), and 60.633(d).
 - (3) Information and data used to demonstrate that a reciprocating compressor is in wet gas service or is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [§§60.633(f), 60.635(c), & 60.486(j)]
 - (4) The owner/operator shall comply with the operation and monitoring requirements, for pressure relief devices in gas/vapor service, of §60.482-4(a) and (b) except as provided in §60-482-4(c) and §60.633(b).
 - (5) Sampling and connection systems are exempt from the requirements of §60.482-5. [§60.633(c)]
 - (6) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.632(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall be closed at all other times. [§60.482-6]
 - (7) The owner/operator shall comply with the monitoring, inspection, and repair requirements, for valves in gas/vapor service and light liquid service, of §60.482-7(b) through (e), except as provided in §60.633(d), 60.482-7(f), (g), and (h), §60.483-1, 60.483-2, and 60.482-1(c). [§60.482-7(a)]
 - (8) The owner/operator shall comply with the monitoring and repair requirements, for pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors, of §60.482-8(a) through (d). [§60.482-8]

- (9) Delay of repair of equipment is allowed if it meets one of the requirements of §60.482-9(a) through (e).
 - (10) The owner/operators using a closed vent system and control device to comply with these provisions shall comply with the design, operation, monitoring and other requirements of §60.482-10(b) through (g). [§60.482-10(a)]
 - b. An owner/operator may elect to comply with the alternative requirements for valves of §60.483-1 and 60.483-2. [§60.632(b) & 60.482-1(b)]
 - c. An owner/operator may apply to the Administrator for permission to use an alternative means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to that achieved by the controls required in NSPS Subpart KKK. In doing so, the owner or operator shall comply with requirements of §60.634. [§60.632(c)]
 - d. The owner/operator shall comply with the test method and procedures of §60.485 except as provided in §60.632(f) and 60.633(h). [§60.632(d)]
 - e. The owner/operator shall comply with the recordkeeping requirements of § 60.486 and the reporting requirements of §60.487 except as provided in §§60.633, 60.635, and 60.636. [§60.632(e)]
 - f. The owner/operator shall comply with the recordkeeping requirements of §60.635(b) and (c) in addition to the requirements of §60.486. [§60.635(a)]
 - g. The owner/operator shall comply with the reporting requirements of §60.636(b) and (c) in addition to the requirements of §60.487.
12. The closed vent systems and control device to T-1, T-2, and T-3 shall be operated to collect all VOC vapors and gases discharged from the storage vessel with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b). [40 CFR 60.112b(a)(3)(i)]
 13. Air emissions from the acid gas flare shall be discharged to at least 170' above grade.
 - (a) The flare pilot flame shall be operated at all times when the emissions may be vented to it.
 - (b) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
 - (c) Records of pilot flame outages and/or flare down time shall be maintained.
 14. The permittee shall comply with all applicable requirements in 40 CFR Part 60, Subpart IIII, for all stationary compression ignition (CI) internal combustion engines (ICE) that commenced construction, modification, or reconstruction after July 11, 2005, including, but not limited to, the following. [40 CFR §§ 60.4200 to 60.4219]
 - (a) § 60.4200 Am I subject to this subpart?
 - (b) § 60.4204 Emission standards for non-emergency engines.
 - (c) § 60.4205 Emission standards for emergency engines.
 - (d) § 60.4206 How long the emission standards be met.
 - (e) § 60.4207 Fuel requirements to be met.
 - (f) § 60.4208 Deadline for importing and installing the stationary engine.
 - (g) § 60.4209 Monitoring requirements of the operations.
 - (h) § 60.4211 Compliance requirements of the operations.

- (i) § 60.4212 Test methods and other procedures to be met.
 - (j) §60.4214 Notification, reporting, and recordkeeping requirements.
 - (k) § 60.4218 Parts of the General Provisions applicable.
 - (l) § 60.4219 Definitions applicable to this subpart.
15. The permittee shall comply with NSPS, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transportation, and Distribution, for each affected facility, including but not limited to: [40 CFR 60.5360 to 60.5430]
- (a) § 60.5360 What is the purpose of this subpart?
 - (b) § 60.5365 Am I subject to this subpart?
 - (c) § 60.5370 When must I comply with this subpart?
 - (d) § 60.5375 What standards apply to gas well affected facilities?
 - (e) § 60.5380 What standards apply to centrifugal compressor affected facilities?
 - (f) § 60.5385 What standards apply to reciprocating compressor affected facilities?
 - (g) § 60.5390 What standards apply to pneumatic controller affected facilities?
 - (h) § 60.5395 What standards apply to storage vessel affected facilities?
 - (i) § 60.5400 What equipment leak standards apply to affected facilities at an onshore natural gas processing plant?
 - (j) § 60.5401 What are the exceptions to the equipment leak standards for affected facilities at onshore natural gas processing plants?
 - (k) § 60.5402 What are the alternative emission limitations for equipment leaks from onshore natural gas processing plants?
 - (l) § 60.5405 What standards apply to sweetening units at onshore natural gas processing plants?
 - (m) § 60.5406 What test methods and procedures must I use for my sweetening units affected facilities at onshore natural gas processing plants?
 - (n) § 60.5407 What are the requirements for monitoring of emissions and operations from my sweetening unit affected facilities at onshore natural gas processing plants?
 - (o) § 60.5408 What is an optional procedure for measuring hydrogen sulfide in acid gas-Tutwiler Procedure?
 - (p) § 60.5410 How do I demonstrate initial compliance with the standards for my gas well affected facility, my centrifugal compressor affected facility, my reciprocating compressor affected facility, my pneumatic controller affected facility, my storage vessel affected facility, and my equipment leaks and sweetening unit affected facilities at onshore natural gas processing plants?
 - (q) § 60.5411 What additional requirements must I meet to determine initial compliance for my closed vent systems routing emissions from storage vessels or centrifugal compressor wet seal fluid degassing systems?
 - (r) § 60.5412 What additional requirements must I meet for determining initial compliance with control devices used to comply with the emission standards for my storage vessel or centrifugal compressor affected facility?
 - (s) § 60.5413 What are the performance testing procedures for control devices used to demonstrate compliance at my storage vessel or centrifugal compressor affected facility?
 - (t) § 60.5415 How do I demonstrate continuous compliance with the standards for my gas well affected facility, my centrifugal compressor affected facility, my stationary reciprocating compressor affected facility, my pneumatic controller affected facility,

- my storage vessel affected facility, and my affected facilities at onshore natural gas processing plants?
- (u) § 60.5416 What are the initial and continuous cover and closed vent system inspection and monitoring requirements for my storage vessel or centrifugal compressor affected facility?
 - (v) § 60.5417 What are the continuous control device monitoring requirements for my storage vessel or centrifugal compressor affected facility?
 - (w) § 60.5420 What are my notification, reporting, and recordkeeping requirements?
 - (x) § 60.5421 What are my additional recordkeeping requirements for my affected facility subject to VOC requirements for onshore natural gas processing plants?
 - (y) § 60.5422 What are my additional reporting requirements for my affected facility subject to VOC requirements for onshore natural gas processing plants?
 - (z) § 60.5423 What additional recordkeeping and reporting requirements apply to my sweetening unit affected facilities at onshore natural gas processing plants?
 - (aa) § 60.5425 What parts of the General Provisions apply to me?
 - (bb) § 60.5430 What definitions apply to this subpart?
16. The facility is subject to 40 CFR Part 63, Subpart HH, and shall comply with all applicable requirements including but not limited to the following: [40 CFR 63.760 – 779]
- (a) 40 CFR 63.760: Applicability and designation of affected source
 - (b) 40 CFR 63.761: Definitions
 - (c) 40 CFR 63.762: Startup, shutdowns, and malfunctions
 - (d) 40 CFR 63.764: General standards
 - (e) 40 CFR 63.765: Glycol dehydration unit process vents standards
 - (f) 40 CFR 63.766: Storage vessel standards
 - (g) 40 CFR 63.769: Equipment leak standards
 - (h) 40 CFR 63.771: Control equipment requirements
 - (i) 40 CFR 63.772: Test methods, compliance procedures, and compliance demonstrations
 - (j) 40 CFR 63.773: Inspection and monitoring requirements
 - (k) 40 CFR 63.774: Recordkeeping requirements
 - (l) 40 CFR 63.775: Reporting requirements
 - (m) 40 CFR 63.776: Delegation of authority
 - (n) 40 CFR 63.777: Alternate means of emission limitation
17. The owner/operator shall comply with all applicable requirements of the NESHAP: Reciprocating Internal Combustion Engines, Subpart ZZZZ, for each affected facility including but not limited to: [40 CFR 63.6580 through 63.6675]
- (a) § 63.6580 What is the purpose of subpart ZZZZ?
 - (b) § 63.6585 Am I subject to this subpart?
 - (c) § 63.6590 What parts of my plant does this subpart cover?
 - (d) § 63.6595 When do I have to comply with this subpart?
 - (e) § 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
 - (f) § 63.6605 What are my general requirements for complying with this subpart?

- (g) § 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?
 - (h) § 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?
 - (i) § 63.6602 What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?
 - (j) § 63.6605 What are my general requirements for complying with this subpart?
 - (k) § 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?
 - (l) § 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?.
 - (m) § 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?
 - (n) § 63.6615 When must I conduct subsequent performance tests?
 - (o) § 63.6620 What performance tests and other procedures must I use?
 - (p) § 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?
 - (q) § 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?
 - (r) § 63.6635 How do I monitor and collect data to demonstrate continuous compliance?
 - (s) § 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?
 - (t) § 63.6645 What notifications must I submit and when?
 - (u) § 63.6650 What reports must I submit and when?
 - (v) § 63.6655 What records must I keep?
 - (w) § 63.6660 In what form and how long must I keep my records?
 - (x) § 63.6665 What parts of the General Provisions apply to me?
 - (y) § 63.6675 What definitions apply to this subpart?
18. The permittee shall maintain records of operations as listed below. These records shall be maintained on site or at a local field office for at least five years after the date of recording and shall be provided to regulatory personnel upon request. [OAC 252:100-8-6 (a)(3)(B)]
- (a) Throughput of Tanks T-6 and T-7. Throughput of these tanks are also used as a surrogate to Tank T-8 (monthly and 12-month rolling totals).
 - (b) The loading rack throughputs.
 - (c) Records of flare pilot flame outages and/or flare down time.
 - (d) Testing of sulfur content (quarterly), gas processing rates (monthly and cumulative annual), and acid gas flow rates to the flare (monthly and cumulative annual), SO₂ calculation (monthly and cumulative annual), as described in Specific Condition #5.

- (e) Records required by 40 CFR Part 60, NSPS, Subparts Dc, Kb, KKK, LLL, IIII, and OOOO.
 - (f) Records required by 40 CFR Part 63, NESHAP, Subparts HH and ZZZZ.
 - (g) For the fuel burned, the appropriate documents as described in Specific Condition #2 (updated annually).
19. No later than 30 days after each anniversary date of the issuance of the original Part 70 permit (October 2, 2006), the permittee shall submit to Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit. [OAC 252:100-8-6 (c)(5)(A) & (D)]
20. The Permit Shield (Standard Conditions, Section VI) is extended to the following requirements that have been determined to be inapplicable to this facility. [OAC 252:100-8-6(d)(2)]
- (a). Oklahoma Air Quality Rules
 - OAC 252:100-11 Alternative Emissions Reduction Plans and Authorizations
 - OAC 252:100-15 Motor Vehicle Pollution Control Devices
 - OAC 252:100-23 Control of Emissions from Cotton Gins
 - OAC 252:100-24 Particulate Matter Emission from Grain Elevators, Feed or Seed Operations
 - OAC 252:100-33 Control of Emission of Nitrogen Oxides
 - OAC 252:100-35 Control of Emission of Carbon Monoxide
 - OAC 252:100-39 Emission of Volatile Organic Compounds (VOCs) in Nonattainment and Former Nonattainment Areas
 - (b). Federal Regulations
 - NSPS, 40 CFR Part 60, Subpart Dc
 - NSPS, 40 CFR Part 60, Subpart GG
21. On issuance, Permit No. 2016-0190-TVR2 supersedes and cancels all previously issued Air Quality operating permits to this facility.

DRAFT



PART 70 PERMIT

**AIR QUALITY DIVISION
STATE OF OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY
707 N. ROBINSON STREET, SUITE 4100
P.O. BOX 1677
OKLAHOMA CITY, OKLAHOMA 73101-1677**

Permit Number: 2016-0190-TVR2

Atlas Pipeline Mid-Continent, L.L.C.,

having complied with the requirements of the law, is hereby granted permission to operate Velma Gas Plant located at Sec. 23-1S-5W in Stephens County, Oklahoma, subject to standard conditions dated June 21, 2016, and Specific Conditions, both attached.

This permit shall expire five (5) years from the date below, except as authorized under Section VIII of the Standard Conditions.

Director, Air Quality Division

Issuance Date

**MAJOR SOURCE AIR QUALITY PERMIT
STANDARD CONDITIONS
(June 21, 2016)**

SECTION I. DUTY TO COMPLY

A. This is a permit to operate / construct this specific facility in accordance with the federal Clean Air Act (42 U.S.C. 7401, et al.) and under the authority of the Oklahoma Clean Air Act and the rules promulgated there under. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

B. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ). The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

C. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Oklahoma Clean Air Act and shall be grounds for enforcement action, permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. All terms and conditions are enforceable by the DEQ, by the Environmental Protection Agency (EPA), and by citizens under section 304 of the Federal Clean Air Act (excluding state-only requirements). This permit is valid for operations only at the specific location listed.

[40 C.F.R. §70.6(b), OAC 252:100-8-1.3 and OAC 252:100-8-6(a)(7)(A) and (b)(1)]

D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations. [OAC 252:100-8-6(a)(7)(B)]

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

A. Any exceedance resulting from an emergency and/or posing an imminent and substantial danger to public health, safety, or the environment shall be reported in accordance with Section XIV (Emergencies). [OAC 252:100-8-6(a)(3)(C)(iii)(I) & (II)]

B. Deviations that result in emissions exceeding those allowed in this permit shall be reported consistent with the requirements of OAC 252:100-9, Excess Emission Reporting Requirements. [OAC 252:100-8-6(a)(3)(C)(iv)]

C. Every written report submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F. [OAC 252:100-8-6(a)(3)(C)(iv)]

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

A. The permittee shall keep records as specified in this permit. These records, including monitoring data and necessary support information, shall be retained on-site or at a nearby field office for a period of at least five years from the date of the monitoring sample, measurement, report, or application, and shall be made available for inspection by regulatory personnel upon request. Support information includes all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Where appropriate, the permit may specify that records may be maintained in computerized form.

[OAC 252:100-8-6 (a)(3)(B)(ii), OAC 252:100-8-6(c)(1), and OAC 252:100-8-6(c)(2)(B)]

B. Records of required monitoring shall include:

- (1) the date, place and time of sampling or measurement;
- (2) the date or dates analyses were performed;
- (3) the company or entity which performed the analyses;
- (4) the analytical techniques or methods used;
- (5) the results of such analyses; and
- (6) the operating conditions existing at the time of sampling or measurement.

[OAC 252:100-8-6(a)(3)(B)(i)]

C. No later than 30 days after each six (6) month period, after the date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report. Submission of these periodic reports will satisfy any reporting requirement of Paragraph E below that is duplicative of the periodic reports, if so noted on the submitted report.

[OAC 252:100-8-6(a)(3)(C)(i) and (ii)]

D. If any testing shows emissions in excess of limitations specified in this permit, the owner or operator shall comply with the provisions of Section II (Reporting Of Deviations From Permit Terms) of these standard conditions.

[OAC 252:100-8-6(a)(3)(C)(iii)]

E. In addition to any monitoring, recordkeeping or reporting requirement specified in this permit, monitoring and reporting may be required under the provisions of OAC 252:100-43, Testing, Monitoring, and Recordkeeping, or as required by any provision of the Federal Clean Air Act or Oklahoma Clean Air Act.

[OAC 252:100-43]

F. Any Annual Certification of Compliance, Semi Annual Monitoring and Deviation Report, Excess Emission Report, and Annual Emission Inventory submitted in accordance with this permit shall be certified by a responsible official. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[OAC 252:100-8-5(f), OAC 252:100-8-6(a)(3)(C)(iv), OAC 252:100-8-6(c)(1), OAC 252:100-9-7(e), and OAC 252:100-5-2.1(f)]

G. Any owner or operator subject to the provisions of New Source Performance Standards ("NSPS") under 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants ("NESHAPs") under 40 CFR Parts 61 and 63 shall maintain a file of all measurements and other

information required by the applicable general provisions and subpart(s). These records shall be maintained in a permanent file suitable for inspection, shall be retained for a period of at least five years as required by Paragraph A of this Section, and shall include records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 C.F.R. §§60.7 and 63.10, 40 CFR Parts 61, Subpart A, and OAC 252:100, Appendix Q]

H. The permittee of a facility that is operating subject to a schedule of compliance shall submit to the DEQ a progress report at least semi-annually. The progress reports shall contain dates for achieving the activities, milestones or compliance required in the schedule of compliance and the dates when such activities, milestones or compliance was achieved. The progress reports shall also contain an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. [OAC 252:100-8-6(c)(4)]

I. All testing must be conducted under the direction of qualified personnel by methods approved by the Division Director. All tests shall be made and the results calculated in accordance with standard test procedures. The use of alternative test procedures must be approved by EPA. When a portable analyzer is used to measure emissions it shall be setup, calibrated, and operated in accordance with the manufacturer's instructions and in accordance with a protocol meeting the requirements of the "AQD Portable Analyzer Guidance" document or an equivalent method approved by Air Quality.

[OAC 252:100-8-6(a)(3)(A)(iv), and OAC 252:100-43]

J. The reporting of total particulate matter emissions as required in Part 7 of OAC 252:100-8 (Permits for Part 70 Sources), OAC 252:100-19 (Control of Emission of Particulate Matter), and OAC 252:100-5 (Emission Inventory), shall be conducted in accordance with applicable testing or calculation procedures, modified to include back-half condensables, for the concentration of particulate matter less than 10 microns in diameter (PM₁₀). NSPS may allow reporting of only particulate matter emissions caught in the filter (obtained using Reference Method 5).

K. The permittee shall submit to the AQD a copy of all reports submitted to the EPA as required by 40 C.F.R. Part 60, 61, and 63, for all equipment constructed or operated under this permit subject to such standards. [OAC 252:100-8-6(c)(1) and OAC 252:100, Appendix Q]

SECTION IV. COMPLIANCE CERTIFICATIONS

A. No later than 30 days after each anniversary date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to the AQD, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit and of any other applicable requirements which have become effective since the issuance of this permit.

[OAC 252:100-8-6(c)(5)(A), and (D)]

B. The compliance certification shall describe the operating permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the methods used for determining compliance, currently and over the reporting period. The compliance certification shall also include such other facts as the permitting authority may require to determine the compliance status of the source.

[OAC 252:100-8-6(c)(5)(C)(i)-(v)]

C. The compliance certification shall contain a certification by a responsible official as to the results of the required monitoring. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."
[OAC 252:100-8-5(f) and OAC 252:100-8-6(c)(1)]

D. Any facility reporting noncompliance shall submit a schedule of compliance for emissions units or stationary sources that are not in compliance with all applicable requirements. This schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the emissions unit or stationary source is in noncompliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the emissions unit or stationary source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based, except that a compliance plan shall not be required for any noncompliance condition which is corrected within 24 hours of discovery.

[OAC 252:100-8-5(e)(8)(B) and OAC 252:100-8-6(c)(3)]

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

The permittee shall comply with any additional requirements that become effective during the permit term and that are applicable to the facility. Compliance with all new requirements shall be certified in the next annual certification.
[OAC 252:100-8-6(c)(6)]

SECTION VI. PERMIT SHIELD

A. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC 252:100-8) shall be deemed compliance with the applicable requirements identified and included in this permit.
[OAC 252:100-8-6(d)(1)]

B. Those requirements that are applicable are listed in the Standard Conditions and the Specific Conditions of this permit. Those requirements that the applicant requested be determined as not applicable are summarized in the Specific Conditions of this permit. [OAC 252:100-8-6(d)(2)]

SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.

[OAC 252:100-5-2.1, OAC 252:100-5-2.2, and OAC 252:100-8-6(a)(8)]

SECTION VIII. TERM OF PERMIT

A. Unless specified otherwise, the term of an operating permit shall be five years from the date of issuance. [OAC 252:100-8-6(a)(2)(A)]

B. A source's right to operate shall terminate upon the expiration of its permit unless a timely and complete renewal application has been submitted at least 180 days before the date of expiration. [OAC 252:100-8-7.1(d)(1)]

C. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-8-1.4(b)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced. [OAC 252:100-8-1.4(a)]

D. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 180 days following the first day of operation. [OAC 252:100-8-4(b)(5)]

SECTION IX. SEVERABILITY

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

[OAC 252:100-8-6 (a)(6)]

SECTION X. PROPERTY RIGHTS

A. This permit does not convey any property rights of any sort, or any exclusive privilege.

[OAC 252:100-8-6(a)(7)(D)]

B. This permit shall not be considered in any manner affecting the title of the premises upon which the equipment is located and does not release the permittee from any liability for damage to persons or property caused by or resulting from the maintenance or operation of the equipment for which the permit is issued.

[OAC 252:100-8-6(c)(6)]

SECTION XI. DUTY TO PROVIDE INFORMATION

A. The permittee shall furnish to the DEQ, upon receipt of a written request and within sixty (60) days of the request unless the DEQ specifies another time period, any information that the DEQ may request to determine whether cause exists for modifying, reopening, revoking, reissuing, terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit.

[OAC 252:100-8-6(a)(7)(E)]

B. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 27A O.S. § 2-5-105(18). Confidential information shall be clearly labeled as such and shall be separable from the main body of the document such as in an attachment.

[OAC 252:100-8-6(a)(7)(E)]

C. Notification to the AQD of the sale or transfer of ownership of this facility is required and shall be made in writing within thirty (30) days after such sale or transfer.

[Oklahoma Clean Air Act, 27A O.S. § 2-5-112(G)]

SECTION XII. REOPENING, MODIFICATION & REVOCATION

A. The permit may be modified, revoked, reopened and reissued, or terminated for cause. Except as provided for minor permit modifications, the filing of a request by the permittee for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition.

[OAC 252:100-8-6(a)(7)(C) and OAC 252:100-8-7.2(b)]

B. The DEQ will reopen and revise or revoke this permit prior to the expiration date in the following circumstances:

[OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]

- (1) Additional requirements under the Clean Air Act become applicable to a major source category three or more years prior to the expiration date of this permit. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.
- (2) The DEQ or the EPA determines that this permit contains a material mistake or that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (3) The DEQ or the EPA determines that inaccurate information was used in establishing the emission standards, limitations, or other conditions of this permit. The DEQ may revoke and not reissue this permit if it determines that the permittee has submitted false or misleading information to the DEQ.
- (4) DEQ determines that the permit should be amended under the discretionary reopening provisions of OAC 252:100-8-7.3(b).

C. The permit may be reopened for cause by EPA, pursuant to the provisions of OAC 100-8-7.3(d).

[OAC 100-8-7.3(d)]

D. The permittee shall notify AQD before making changes other than those described in Section XVIII (Operational Flexibility), those qualifying for administrative permit amendments, or those defined as an Insignificant Activity (Section XVI) or Trivial Activity (Section XVII). The notification should include any changes which may alter the status of a "grandfathered source," as defined under AQD rules. Such changes may require a permit modification.

[OAC 252:100-8-7.2(b) and OAC 252:100-5-1.1]

E. Activities that will result in air emissions that exceed the trivial/insignificant levels and that are not specifically approved by this permit are prohibited.

[OAC 252:100-8-6(c)(6)]

SECTION XIII. INSPECTION & ENTRY

A. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized regulatory officials to perform the following (subject to the permittee's right to seek confidential treatment pursuant to 27A O.S. Supp. 1998, § 2-5-105(17) for confidential information submitted to or obtained by the DEQ under this section):

- (1) enter upon the permittee's premises during reasonable/normal working hours where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- (2) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (3) inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- (4) as authorized by the Oklahoma Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit.

[OAC 252:100-8-6(c)(2)]

SECTION XIV. EMERGENCIES

A. Any exceedance resulting from an emergency shall be reported to AQD promptly but no later than 4:30 p.m. on the next working day after the permittee first becomes aware of the exceedance. This notice shall contain a description of the emergency, the probable cause of the exceedance, any steps taken to mitigate emissions, and corrective actions taken.

[OAC 252:100-8-6 (a)(3)(C)(iii)(I) and (IV)]

B. Any exceedance that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to AQD as soon as is practicable; but under no circumstance shall notification be more than 24 hours after the exceedance.

[OAC 252:100-8-6(a)(3)(C)(iii)(II)]

C. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

[OAC 252:100-8-2]

D. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that:

[OAC 252:100-8-6 (e)(2)]

- (1) an emergency occurred and the permittee can identify the cause or causes of the emergency;
- (2) the permitted facility was at the time being properly operated;
- (3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit.

E. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof.

[OAC 252:100-8-6(e)(3)]

F. Every written report or document submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F.

[OAC 252:100-8-6(a)(3)(C)(iv)]

SECTION XV. RISK MANAGEMENT PLAN

The permittee, if subject to the provision of Section 112(r) of the Clean Air Act, shall develop and register with the appropriate agency a risk management plan by June 20, 1999, or the applicable effective date. [OAC 252:100-8-6(a)(4)]

SECTION XVI. INSIGNIFICANT ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate individual emissions units that are either on the list in Appendix I to OAC Title 252, Chapter 100, or whose actual calendar year emissions do not exceed any of the limits below. Any activity to which a State or Federal applicable requirement applies is not insignificant even if it meets the criteria below or is included on the insignificant activities list.

- (1) 5 tons per year of any one criteria pollutant.
- (2) 2 tons per year for any one hazardous air pollutant (HAP) or 5 tons per year for an aggregate of two or more HAP's, or 20 percent of any threshold less than 10 tons per year for single HAP that the EPA may establish by rule.

[OAC 252:100-8-2 and OAC 252:100, Appendix I]

SECTION XVII. TRIVIAL ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate any individual or combination of air emissions units that are considered inconsequential and are on the list in Appendix J. Any activity to which a State or Federal applicable requirement applies is not trivial even if included on the trivial activities list.

[OAC 252:100-8-2 and OAC 252:100, Appendix J]

SECTION XVIII. OPERATIONAL FLEXIBILITY

A. A facility may implement any operating scenario allowed for in its Part 70 permit without the need for any permit revision or any notification to the DEQ (unless specified otherwise in the permit). When an operating scenario is changed, the permittee shall record in a log at the facility the scenario under which it is operating. [OAC 252:100-8-6(a)(10) and (f)(1)]

B. The permittee may make changes within the facility that:

- (1) result in no net emissions increases,
- (2) are not modifications under any provision of Title I of the federal Clean Air Act, and
- (3) do not cause any hourly or annual permitted emission rate of any existing emissions unit to be exceeded;

provided that the facility provides the EPA and the DEQ with written notification as required below in advance of the proposed changes, which shall be a minimum of seven (7) days, or twenty four (24) hours for emergencies as defined in OAC 252:100-8-6 (e). The permittee, the DEQ, and the EPA shall attach each such notice to their copy of the permit. For each such change, the written notification required above shall include a brief description of the change

within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The permit shield provided by this permit does not apply to any change made pursuant to this paragraph. [OAC 252:100-8-6(f)(2)]

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

A. The following applicable requirements and state-only requirements apply to the facility unless elsewhere covered by a more restrictive requirement:

- (1) Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter. [OAC 252:100-13]
- (2) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]
- (3) For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for: [OAC 252:100-25]
 - (a) Short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity;
 - (b) Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;
 - (c) An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or
 - (d) Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property.
- (4) No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]
- (5) No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]
- (6) Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with a vapor-recovery system. [OAC 252:100-37-15(b)]
- (7) All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]

SECTION XX. STRATOSPHERIC OZONE PROTECTION

A. The permittee shall comply with the following standards for production and consumption of ozone-depleting substances: [40 CFR 82, Subpart A]

- (1) Persons producing, importing, or placing an order for production or importation of certain class I and class II substances, HCFC-22, or HCFC-141b shall be subject to the requirements of §82.4;
- (2) Producers, importers, exporters, purchasers, and persons who transform or destroy certain class I and class II substances, HCFC-22, or HCFC-141b are subject to the recordkeeping requirements at §82.13; and
- (3) Class I substances (listed at Appendix A to Subpart A) include certain CFCs, Halons, HBFCs, carbon tetrachloride, trichloroethane (methyl chloroform), and bromomethane (Methyl Bromide). Class II substances (listed at Appendix B to Subpart A) include HCFCs.

B. If the permittee performs a service on motor (fleet) vehicles when this service involves an ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all applicable requirements. Note: The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant. [40 CFR 82, Subpart B]

C. The permittee shall comply with the following standards for recycling and emissions reduction except as provided for MVACs in Subpart B: [40 CFR 82, Subpart F]

- (1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
- (2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158;
- (3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161;
- (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
- (5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
- (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

SECTION XXI. TITLE V APPROVAL LANGUAGE

A. DEQ wishes to reduce the time and work associated with permit review and, wherever it is not inconsistent with Federal requirements, to provide for incorporation of requirements established through construction permitting into the Source’s Title V permit without causing redundant review. Requirements from construction permits may be incorporated into the Title V permit through the administrative amendment process set forth in OAC 252:100-8-7.2(a) only if the following procedures are followed:

- (1) The construction permit goes out for a 30-day public notice and comment using the procedures set forth in 40 C.F.R. § 70.7(h)(1). This public notice shall include notice to the public that this permit is subject to EPA review, EPA objection, and petition to EPA, as provided by 40 C.F.R. § 70.8; that the requirements of the construction permit will be incorporated into the Title V permit through the administrative amendment process; that the public will not receive another opportunity to provide comments when the requirements are incorporated into the Title V permit; and that EPA review, EPA objection, and petitions to EPA will not be available to the public when requirements from the construction permit are incorporated into the Title V permit.
- (2) A copy of the construction permit application is sent to EPA, as provided by 40 CFR § 70.8(a)(1).
- (3) A copy of the draft construction permit is sent to any affected State, as provided by 40 C.F.R. § 70.8(b).
- (4) A copy of the proposed construction permit is sent to EPA for a 45-day review period as provided by 40 C.F.R. § 70.8(a) and (c).
- (5) The DEQ complies with 40 C.F.R. § 70.8(c) upon the written receipt within the 45-day comment period of any EPA objection to the construction permit. The DEQ shall not issue the permit until EPA's objections are resolved to the satisfaction of EPA.
- (6) The DEQ complies with 40 C.F.R. § 70.8(d).
- (7) A copy of the final construction permit is sent to EPA as provided by 40 CFR § 70.8(a).
- (8) The DEQ shall not issue the proposed construction permit until any affected State and EPA have had an opportunity to review the proposed permit, as provided by these permit conditions.
- (9) Any requirements of the construction permit may be reopened for cause after incorporation into the Title V permit by the administrative amendment process, by DEQ as provided in OAC 252:100-8-7.3(a), (b), and (c), and by EPA as provided in 40 C.F.R. § 70.7(f) and (g).
- (10) The DEQ shall not issue the administrative permit amendment if performance tests fail to demonstrate that the source is operating in substantial compliance with all permit requirements.

B. To the extent that these conditions are not followed, the Title V permit must go through the Title V review process.

SECTION XXII. CREDIBLE EVIDENCE

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any provision of the Oklahoma implementation plan, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[OAC 252:100-43-6]

DRAFT

Targa Pipeline Mid-Continent, L.L.C.
Attn: Mr. Jarrod Gregg, Manager, Environmental Services
14000 Quail Springs Pkwy, Suite 215
Oklahoma City, OK 73134

SUBJECT: Operating Permit **No. 2016-0190-TV2**
Velma Gas Plant (Facility ID: 1509)
Section 23, Township 1S, Range 5W, Stephens County, Oklahoma.

Dear Mr. Gregg:

Air Quality Division has completed the initial review of your major source operating permit application referenced above. This application has been determined to be a **Tier II**. In accordance with 27A O.S. §2-14-302 and OAC 252:002-31 the enclosed draft permit is now ready for public review. The requirement for public review include the following steps which you must accomplish:

1. Publish at least one legal notice (one day) in at least one newspaper of general circulation within the county where the facility is located. (Instruction enclosed)
2. Provide for public review (for a period of 30 days following the date of the newspaper announcement) a copy of this draft permit and a copy of the application at a convenient location (preferably a public location) within the county of the facility.
3. Send to AQD a copy of the proof of publication notice from Item #1 above together with any additional comments or requested changes, which you may have on the draft permit.

Thank you for your cooperation in this matter. If we may be of further service, or you have any questions about this permit, please contact the permit writer or me at (405) 702-4100.

Sincerely,

Phillip Fielder, P.E.
Permits and Engineering Group Manager
AIR QUALITY DIVISION