

# DRAFT

## OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

### MEMORANDUM

January 12, 2010

**TO:** Phillip Fielder, P.E., Permits and Engineering Group Manager  
Air Quality Division

**THROUGH:** Kendal Stegmann, Senior Environmental Manager  
Compliance and Enforcement

**THROUGH:** Richard Kienlen, P.E., Engineer Manager, New Source Section

**THROUGH:** Peer Review

**FROM:** Eric L. Milligan, P.E., Engineering Section

**SUBJECT:** Evaluation of Permit Application **No. 2009-172-O**  
Atlas Pipeline Mid-Continent, LLC (Atlas)  
Chaney Dell Compressor Station (SIC 1311)  
NW/4 of Section 35, Township 23N, Range 10 W, Major County, Oklahoma  
Latitude: 36.432°N; Longitude: 98.246°W  
Location: 3 ½ miles north of Ringwood on SH 58

### INTRODUCTION

Atlas has requested a “synthetic” minor facility operating permit for their existing Chaney Dell Gas Plant. This facility is currently operating as authorized by Permit No. 2003-105-TV R which was issued on November 20, 2007. On February 20, 2009 a significant portion of the facility ceased operating including the gas plant portion of the facility. As a result, the potential to emit of the facility has decreased and now qualifies as a “synthetic” minor facility.

### PROCESS DESCRIPTION

The Chaney Dell Compressor Station has four high pressure inlet pipelines handling gas from distant compressor stations. Compressor C-14 compresses the gas for further transport to the Waynoka Gas Plant. Compressor C-13 will function as a backup for C-14. Liquid separation vessels are provided on the high-pressure inlet gas streams to capture and separate pipeline liquids from the gas. Separated liquids are normally transported onward to the Waynoka Gas Plant for processing. Under upset conditions, if the inlet separator vessels reach capacity, the 400-barrel condensate tanks will be utilized on a temporary basis for extra storage. Condensate in the 400-barrel condensate tanks is normally transported onward to the Waynoka Gas Plant via pipeline, however, it may also be loaded out via tank truck, if needed. Upset conditions will be

the only times that condensate storage tanks are utilized. Given the limited usage and throughput for these tanks, the vapor recovery unit will no longer be necessary.

The facility has four low-pressure inlet pipelines handling gas from nearby fields. The low pressure gas is compressed by compressor C-17 (powered by an electric motor), dehydrated, and then combined with the high pressure gas for transport to the Waynoka Gas Plant for processing. The glycol dehydration unit is equipped with a flash tank and a BTEX eliminator on the still vent to reduce VOC and HAP emissions. The off-gases from the glycol dehydration unit's flash tank will be routed to the station's low pressure inlet. The slop water storage tanks will contain liquid from the facility drain system and from various scrubber dumps. Liquids consist of rainwater, produced water, lube oil, triethylene glycol, and small amounts of condensate. The liquids will be loaded out via tank truck for disposal at an approved facility.

**EQUIPMENT**

**Internal Combustion Engines**

Point	Make/Model	hp	Serial #	Mfg. Date
C-13	Waukesha L7042 GSIU W/CC	1,478	308260	1978
C-14	Waukesha L7042 GSIU W/CC	1,478	354183	1980
EM-1	GENCO GT990 <sup>1</sup>	32	820120708179	6/2008

W/CC – With Catalytic Converter; <sup>1</sup> - Emergency Generator.

**Dehydration Unit**

Point	Name	MMBTUH	Const. Date
H-401	Glycol Dehydration Unit Reboiler	0.5	2006
H-401-Vent	Dehydration Unit Still Vent/Eliminator <sup>1</sup>	N/A	2006

<sup>1</sup> - Condenser w/still vent vented to firebox.

**Ground Flare**

Point	Name	MMBTUH	Const. Date
GF-1	Ground Flare	1.7	1965

**Tanks**

Point	Contents	Barrels	Gallons
V-81	Condensate	400	16,800
V-82	Condensate	400	16,800
V-83	Slop Water	400	16,800
V-84	Slop Water	400	16,800
V-87	Methanol	285	11,970
V-89	Slop Water	400	16,800
V-90	Condensate	400	16,800
T-15	Lube Oil (horizontal)	380	15,960

**Tanks (Continued)**

Point	Contents	Barrels	Gallons
T-17	Gasoline	210	8,820
T-18	Bio-degradable Solvent	13	550
T-19	Diesel Fuel	12	500
T-20	Kerosene Fuel	12	500
T-22	Ethylene Glycol	24	1,000
T-23	Ethylene Glycol	24	1,000

The facility will have other miscellaneous tanks that will have de minimis emissions.

**Fugitive Equipment Leaks**

Point	Number Items	Type of Equipment
Fug	175	Valves
	260	Connectors
	91	Flanges
	25	Open Ended Lines
	43	Other
	15	Pump Seals

**Truck Loading Operations**

Point	Description
Truck	Truck Loading Emissions

**Engine Parameters**

Point	Source (make/model)	Height (feet)	Dia. (inches)	Flow (ACFM)	Temp. (°F)	Fuel <sup>1</sup> (SCFH)
C-13	Waukesha L7042 GSIU	23	14	6,970	1,125	11,564
C-14	Waukesha L7042 GSIU	23	14	6,970	1,125	11,564
EM-1	GENCO GT990	2	2	134	815	250

<sup>1</sup> – based on a fuel heat content of 1,000 BTU/SCF.

**EMISSIONS**

The compressor engine emission estimates are based on continuous operation (8,760 hours per year) and manufacturer’s data shown below. Emission estimates from the reboiler are based on AP-42 (7/98), Section 1.4, plus a 20% safety factor. Emission estimates from the glycol dehydration unit’s still vent are based on GRI-GLYCalc Version 4.0, an inlet gas analysis and the operating parameters below plus a 20% safety factor. The BTEX eliminator consists of a condenser with combustion of the uncondensed vapors in the reboiler firebox which is equipped with a continuous pilot flame with an estimated combustion efficiency of 50%. The flash tank of the glycol dehydration unit is recycled/recompressed to the inlet of the facility. Emissions from the ground flare are based on 1.7 MMBTUH of pilot gas and AP-42 (7/98), Section 1.4 for NO<sub>x</sub>

and CO and 95% combustion of VOC in the pilot gas. Flashing losses/emissions from the condensate tanks during upset conditions and the slop oil tanks are based on the Vasquez-Beggs Gas-Oil correlation, an inlet pressure of 15 psig, and a total throughput of 14,343 barrels/year. Working and breathing emissions from the tanks were based on TANKS4.0. Emissions from loading of condensate into tank trucks during upset conditions were estimated using a total throughput of 7,200 barrels per year and a factor of 6.8608 lb/1,000 gallons calculated using AP-42 (1/95), Section 5.2. Emissions from loading of slop oil into tank trucks were estimated using a throughput of 7,143 barrels per year and a factor of 3.504 lb/1,000 gallons calculated using AP-42 (1/95), Section 5.2. Fugitive VOC emissions are based on EPA's 1995 Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017), an estimated number of components, and an estimated percent C<sub>3+</sub>.

**Engine Emission Factors**

Point	Name/Model	NO <sub>x</sub> (g/hp-hr)	CO (g/hp-hr)	VOC (g/hp-hr)
C-13 & C-14	1,478-hp Waukesha L7042 GSIU W/CC	2.5	2.5	1.0
		(g/kW-hr)	(g/kW-hr)	(g/kW-hr)
EM-1	17-kW GENERAC GT990	8.06	31.0	1.14 <sup>1</sup>

W/CC – With Catalytic Converter; <sup>1</sup> – Total HC from manufacturer specification sheet.

**Dehydration Unit Parameters**

Point	Source	Max Lean Glycol Flow (gpm)	Dry Gas Flow (MMSCFD)	VOC Removal Efficiency (%)
H-401 Vent	Dehydration Unit	1.5	9.0	87.26%

The internal combustion engines have emissions of HAP, the most significant being formaldehyde. Formaldehyde emission estimates are based on continuous operation and the emission factors shown in the following table. A control efficiency of 70% is applied to engines with catalytic converters.

**Formaldehyde Emissions from the Engines**

Point	Source	Hp	Factor	Est. Emissions	
			g/hp-hr	lb/hr	TPY
C-13	Waukesha L7042 GSIU W/CC	1,478	0.05	0.049	0.215
C-14	Waukesha L7042 GSIU W/CC	1,478	0.05	0.049	0.215
EM-1	GENCO GT990	32	0.05	0.004	0.018
<b>Totals</b>				<b>0.102</b>	<b>0.448</b>

W/CC – With Catalytic Converter.

The dehydration unit using a glycol desiccant will emit benzene, toluene, ethyl benzene, xylene, (BTEX) and n-hexane from the still vent stack/condenser. These compounds are regulated as HAP. The applicant has analyzed the inlet gas for concentrations of BTEX and n-hexane and estimated the emissions using GRI-GLYCalc™ version 4.0 software model. Due to the potential

HAP emissions from the dehydration unit, a condenser with a BTEX eliminator was installed on the dehydration unit. The HAP control efficiency of the BTEX eliminator has been estimated at approximately 92.66%.

**HAP Emissions from the Glycol Dehydration Unit**

Pollutant	CAS #	Uncontrolled		Controlled	
		lb/hr	TPY	lb/hr	TPY
Benzene	71432	1.084	4.748	0.115	0.503
Toluene	108883	0.664	2.908	0.025	0.110
Ethyl benzene	100414	0.303	1.326	0.004	0.019
Xylene	1330207	0.112	0.492	0.001	0.006
n-Hexane	110543	0.195	0.856	0.028	0.121
<b>Totals</b>		<b>2.358</b>	<b>10.330</b>	<b>0.173</b>	<b>0.759</b>

**Facility Wide Criteria Pollutant Emissions**

Sources	NO <sub>x</sub>		CO		VOC	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1,478-hp Waukesha L7042 GSIU <sup>1</sup>	8.15	35.70	8.15	35.70	3.26	14.28
1,478-hp Waukesha L7042 GSIU <sup>1</sup>	8.15	35.70	8.15	35.70	3.26	14.28
17-kW GENERAC GT990	0.30	1.32	1.16	5.09	0.04	0.19
Dehydration Unit Reboiler/Still Vent	0.06	0.27	0.05	0.23	0.78	3.41
Ground Flare	0.17	0.73	0.14	0.61	0.64	2.79
Tanks <sup>2</sup>	----	----	----	----	----	27.29
Loading	----	----	----	----	----	1.56
Fugitives	----	----	----	----	----	6.63
<b>Total Emissions</b>	<b>16.83</b>	<b>73.72</b>	<b>17.65</b>	<b>77.33</b>	<b>7.98</b>	<b>70.43</b>

<sup>1</sup> - Equipped with a Catalytic Converter.

<sup>2</sup> - Includes working, breathing, and flashing emissions.

**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 252:100-7 (Permits for Minor Facilities) [Applicable]  
Subchapter 7 sets forth the permit application fees and the basic substantive requirements of permits for minor facilities. After modification, criteria pollutant emissions will be less than 100 TPY for each pollutant and emissions of HAP will not exceed 10 TPY for any one HAP or 25 TPY for any aggregate of HAP. Therefore, the facility will meet the definition of a minor facility.

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 (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 PM emissions limitation of 0.6 lbs/MMBTU from fuel-burning units with a rated heat input of 10 MMBTUH or less. For fuel-burning equipment rated between 10 and 20 MMBTUH the limit is 0.51 lb/MMBTU. For external combustion units burning natural gas, AP-42, Table 1.4-2 (7/98), lists the total PM emissions for natural gas to be 7.6 lb/MMft<sup>3</sup> or about 0.0076 lb/MMBTU. For 4-cycle rich-burn and lean-burn engines burning natural gas, AP-42 (7/00), lists the total PM emissions as approximately 0.02 and 0.01 lb/MMBTU, respectively. The permit requires the use of natural gas for all fuel-burning equipment to ensure compliance with Subchapter 19.

OAC 252:100-25 (Emissions and Particulates) [Applicable]  
No discharge of greater than 20% opacity is allowed except for 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. The permit will require that fuel-burning units be fueled only with natural gas to ensure compliance with these requirements.

OAC 252:100-29 (Fugitive Dust) [Applicable]  
This subchapter states that 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. Under normal operating conditions, this facility has negligible potential to violate this requirement, therefore it is not necessary to require specific precautions to be taken.

OAC 252:100-31 (Sulfur Compounds) [Applicable]  
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.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]  
This subchapter limits new gas-fired fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to emissions of 0.2 lbs of NO<sub>x</sub> per MMBTU. There are no equipment items that exceed the 50 MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]  
This facility has none of the affected sources: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic reforming unit or petroleum catalytic cracking unit.

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]  
Part 3 requires VOC 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 to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. This applies to the gasoline, methanol, and condensate tank V-90, which are equipped with submerged fill. The slop water tanks contain facility rain water runoff mixed with various lube oil residues which has a vapor pressure below 1.5 psi and they are not subject. Condensate tanks V-81 and V-82 were constructed prior to December 28, 1974, and are not subject.  
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. This facility does not have the physical equipment (loading arm and pump) to conduct this type of loading and is not subject to this requirement.

Part 5 limits the VOC content of coatings used in coating lines or operations. Any painting operation will involve maintenance coating of buildings and equipment and emit less than 100 pounds per day of VOC and so is exempt.

Part 7 requires fuel-burning and refuse-burning equipment to be operated to minimize emissions of VOC. The equipment at this location is subject to this requirement.

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. No effluent water separators are located at this facility.

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 any EPA Reference Method stack tests. 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.

## FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]

Final total emissions are less than the threshold of 250 TPY of any single regulated pollutant and the facility is not one of the 26 specific industries with a threshold of 100 TPY.



NSPS, 40 CFR Part 60 [Not Applicable]

Subparts K, Ka, Kb, VOL Storage Vessels. This subpart regulates hydrocarbon storage tanks larger than 19,813 gallons capacity for Kb and 40,000 gallons for K and Ka. These subparts are not applicable since all tanks are below the applicable thresholds for each subpart.

Subpart GG, Stationary Gas Turbines. There are none at this facility.

Subpart VV, Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry. None of the equipment is in a SOCOMI plant.

Subpart KKK, Equipment Leaks of VOC from Onshore Natural Gas Processing Plants. This subpart sets standards for natural gas processing plants which are defined as any site engaged in the extraction of natural gas liquids from field gas, fractionation of natural gas liquids, or both. This facility will not engage in this type of activity.

Subpart LLL, Onshore Natural Gas Processing: SO<sub>2</sub> Emissions. This subpart affects sweetening units and sweetening units followed by a sulfur recovery unit. This facility does not have a sweetening unit.

Subpart IIII, Stationary Compression Ignition (CI) Internal Combustion Engines (ICE). This subpart affects CI ICE manufactured after 2007. There are no CI ICE located at this facility.

Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI-ICE). This subpart promulgates 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 specific emission standards (either in g/hp-hr or as a concentration limit) vary based on engine class, engine power rating, lean-burn or rich-burn, fuel type, duty (emergency or non-emergency), and numerous manufacture dates. Engines C-13, C-14, and EM-1 were manufactured prior to the applicability date of this subpart.

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 affects process streams which contain more than 10% benzene by weight. Analysis of Oklahoma natural gas indicates a maximum benzene content of less than 1%. All process streams at this facility are below this threshold.

NESHAP, 40 CFR Part 63 [Subpart HH is Applicable]

Subpart HH, Oil and Natural Gas Production Facilities. This subpart applies to affected sources that are located at facilities which are major and area sources of HAP. The only affected unit at an area source is triethylene glycol (TEG) dehydration units. Even though the new TEG dehydration unit at this facility is considered an affected area source it is exempt from the requirements of § 63.764(d)(2) since the actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 1 TPY, as determined by the procedures specified in § 63.772(b)(2). However, the facility must maintain records of the de minimis determination as required in § 63.774(d)(1). All applicable requirements have been incorporated into the permit.

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart previously affected only RICE with a site-rating greater than 500 brake horsepower that are located at a major source of HAP emissions. On January 18, 2008, the EPA published a final rule that

promulgates standards for new and reconstructed engines (after June 12, 2006) with a site rating less than or equal to 500 HP located at major sources, and for new and reconstructed engines (after June 12, 2006) located at area sources. Owners and operators of new or reconstructed engines at area sources and of new or reconstructed engines with a site rating equal to or less than 500 HP located at a major source (except new or reconstructed 4-stroke lean-burn engines with a site rating greater than or equal to 250 HP and less than or equal to 500 HP located at a major source) must meet the requirements of Subpart ZZZZ by complying with either 40 CFR Part 60 Subpart IIII (for CI engines) or 40 CFR Part 60 Subpart JJJJ (for SI engines).

Based on emission calculations, this facility is a minor source of HAP. Engines C-13, C-14, and EM-1 were manufactured prior to the applicability date of this subpart. On March 5, 2009, EPA proposed additional requirements for stationary RICE located at area sources. A summary of these requirements for engines located at this facility is shown below.

Engine Category	Normal Operation (During SSM) @ 15% O <sub>2</sub>
Existing Non-Emergency 4SRB ≥ 50 hp	200 ppbvd H <sub>2</sub> CO or 90% H <sub>2</sub> CO reduction (2 ppmvd H <sub>2</sub> CO)
Existing Emergency SI ≥ 50 hp ≤ 500 hp	Change Oil/Filter Every 500 Hours; Replace Spark Plugs Every 1,000 Hours; and Inspect Hoses/Belts Every 500 Hours.

SSM – Startup, Shutdown & Malfunction.

The two rich-burn engines are equipped with catalytic converters and are expected to be able to comply with the H<sub>2</sub>CO emission limit. The emergency engine will have to maintain records of hours of operation and maintenance to show compliance with this regulation.

Subpart CCCCCC, Gasoline Dispensing Facilities. This subpart establishes emission limitations and management practices for HAP emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF) located at an area source. GDF means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

- 1) Minimize gasoline spills;
- 2) Clean up spills as expeditiously as practicable;
- 3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- 4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

This facility has a gasoline storage tank and dispenses gasoline from it. The estimated throughput is approximately 6,825 gallons per month. The facility is considered an existing facility and has until January 10, 2011 to comply with the requirements of this subpart.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable]  
 The definition of a stationary source does not apply to transportation, including storage incident to transportation, of any regulated substance or any other extremely hazardous substance under the provisions of this part. The definition of a stationary source also does not include naturally occurring hydrocarbon reservoirs. Naturally occurring hydrocarbon mixtures, prior to entry into a natural gas processing plant or a petroleum refining process unit, including: condensate, crude oil, field gas, and produced water, are exempt for the purpose of determining whether more than a threshold quantity of a regulated substance is present at the stationary source. This facility does not store any regulated substance above the applicable threshold limits. More information on this federal program is available on the web page: [www.epa.gov/ceppo](http://www.epa.gov/ceppo).

**COMPLIANCE**

**Testing**

As shown below, engine testing was provided which shows compliance with the applicable permit conditions.

	Limits		Test Results		
	NO <sub>x</sub>	CO	NO <sub>x</sub>	CO	
Source	lb/hr	lb/hr	lb/hr	lb/hr	Date
1,478-hp Waukesha L7042 GSIU <sup>1</sup> , C-13	8.15	8.15	6.67	2.87	9/25/09
1,478-hp Waukesha L7042 GSIU <sup>1</sup> , C-14	8.15	8.15	1.51	0.62	12/7/09

<sup>1</sup> – Equipped with a Catalytic Converter.

**Inspection**

An inspection was conducted on January 12, 2010. The inspection was conducted by Eric L. Milligan of Air Quality who was accompanied by Jay Faulkner of Atlas. The facility was operating as described in the permit application and supplemental materials.

**Tier Classification and Public Review**

This application has been determined to be Tier II based on the request for significant modification 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 applicant owns the land which is used to accomplish the permitted purpose. Information on all permit actions is available for review by the public on the Air Quality section of the DEQ web page at: <http://www.deq.state.ok.us>.

The applicant will publish the “Notice of Filing a Tier II Application” in a newspaper in Major County. The notice will state that the application is available for public review in the county for a period of 30 days and that the application is also available for public review at the Air Quality Division main office. The applicant will also publish the “Notice of Draft Permit” in a newspaper in Major County. The notice will state that the draft permit is available for public review for a period of 30 days within the county and at the Air Quality Division main office and on the Air Quality section of the DEQ web page at <http://www.deq.state.ok.us>.

**EPA Review**

The proposed permit will be forwarded to EPA for a 45-day review period after public review.

**Fees Paid**

The applicant paid \$1,000 for significant modification of a Part 70 operating permit to get a minor facility permit.

**SUMMARY**

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

# DRAFT

## PERMIT TO OPERATE AIR POLLUTION CONTROL FACILITY SPECIFIC CONDITIONS

**Atlas Pipeline Mid-Continent, LLC  
Chaney Dell Compressor Station**

**Permit No. 2009-172-O**

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on June 16, 2009, and all supplemental information. The Evaluation Memorandum dated January 12, 2010, 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 emission limitations for each point:

Sources	NO <sub>x</sub>		CO		VOC	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1,478-hp Waukesha L7042 GSIU <sup>1</sup> , C-13	8.15	35.70	8.15	35.70	3.26	14.28
1,478-hp Waukesha L7042 GSIU <sup>1</sup> , C-14	8.15	35.70	8.15	35.70	3.26	14.28
17-kW GENERAC GT990	0.30	1.32	1.16	5.09	0.04	0.19
Dehydration Unit Reboiler/Still Vent	0.06	0.27	0.05	0.23	0.78	3.41
Ground Flare	0.17	0.73	0.14	0.61	0.64	2.79
Tanks <sup>2</sup>	----	----	----	----	----	27.29
Loading	----	----	----	----	----	1.56

<sup>1</sup> - Equipped with a Catalytic Converter.

<sup>2</sup> - Includes working, breathing, and flashing emissions.

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. 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. Compliance shall be demonstrated at least once annually.
3. The permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year).
4. The engines shall have a permanent identification plate attached which shows the make, model number, and serial number.
5. The 1,478-hp Waukesha L7042 GSIU engines shall each be operated with automatic air/fuel ratio controllers and with the exhaust gases passing through a properly functioning catalytic converter.

6. At least once per calendar quarter, the permittee shall conduct tests of NO<sub>x</sub> and CO emissions from engines C-13 and C-14 and from each replacement engine for C-13 and C-14 when operating under representative conditions for that period. Testing is required for any engine/turbine that runs for more than 220 hours during that calendar quarter. A quarterly test may be conducted no sooner than 20 calendar days after the most recent test. Testing shall be conducted using a portable analyzer in accordance with a protocol meeting the requirements of the latest AQD Portable Analyzer Guidance document, or an equivalent method approved by Air Quality. When four consecutive quarterly tests show the engine/turbine to be in compliance with the emissions limitations shown in the permit, then the testing frequency may be reduced to semi-annual testing. A semi-annual test may be conducted no sooner than 60 calendar days nor later than 180 calendar days after the most recent test. Likewise, when the following two consecutive semi-annual tests show compliance, the testing frequency may be reduced to annual testing. An annual test may be conducted no sooner than 120 calendar days nor later than 365 calendar days after the most recent test. Upon any showing of non-compliance with emissions limitations or testing that indicates that emissions are within 10% of the emission limitations, the testing frequency shall revert to quarterly. Reduced testing frequency does not apply to engines with catalytic converters.

7. When periodic compliance testing shows engine exhaust emissions in excess of the lb/hr limits, the permittee shall comply with the provisions of OAC 252:100-9.

8. Replacement (including temporary periods of 6 months or less for maintenance purposes), of internal combustion engines with emission limitations specified in this permit with engines of lesser or equal emissions of each pollutant (in lbs/hr and TPY) are authorized under the following conditions.

- a. The permittee shall notify AQD in writing within 10 days of start-up of the replacement engine. Said notice shall identify the engine removed and include the date of the change, the new engine(s) make and model, serial number, horsepower rating, fuel usage, stack flow (ACFM), stack temperature (°F), stack height (feet), stack diameter (inches), and pollutant emissions rates (g/hp-hr, lb/hr, and TPY) at maximum rated horsepower for the altitude/location.
- b. Quarterly emissions tests for the replacement engine(s)/turbine(s) shall be conducted to confirm continued compliance with NO<sub>x</sub> and CO concentration limitations. A copy of the first quarter testing shall be provided to AQD within 60 days of start-up of each replacement engine/turbine. The test report shall include the engine/turbine fuel usage, stack flow (ACFM), stack temperature (°F), stack height (feet), stack diameter (inches), and pollutant emission rates (g/hp-hr, lbs/hr, and TPY) at maximum rated horsepower for the altitude/location.
- c. Replacement equipment and emissions are limited to equipment and emissions that are not subject to NSPS, NESHAP, or PSD review.

9. The total condensate throughput for the facility shall not exceed 7,200 barrels in any rolling 12-month period.

10. The glycol dehydration unit shall be maintained and operated as follows:

- a. The glycol dehydration unit shall not exceed the following limits:
  - i. The natural gas throughput shall not exceed 9.0 MMSCFD based on a monthly average.
  - ii. The glycol recirculation pump capacity shall not exceed 1.5 gpm.
- b. The glycol dehydration unit shall be equipped with a condenser with the off-gases from the still vent being vented through the condenser when the dehydration unit is operating. The uncondensed vapors from the condenser shall be routed to the reboiler firebox.
- c. The glycol dehydration unit shall be equipped with a flash tank. All off-gases from the flash tank shall be recycled/recompressed into the facility's low-pressure inlet.

11. The permittee shall comply with all applicable requirements of 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart HH, Oil and Natural Gas Production, for each affected dehydration unit including but not limited to the following:

[40 CFR 63.760 through 63.775]

- a. An owner or operator of a glycol dehydration unit that meets the exemption criteria in § 63.764(e)(1)(i) or § 63.764(e)(1)(ii) shall maintain the records specified in §§ 63.774(d)(1)(i) or (d)(1)(ii), as appropriate, for that glycol dehydration unit.

12. The permittee shall either remove/disable all gasoline dispensing facilities or comply with all applicable requirements of 40 CFR Part 63, NESHAP, Subpart CCCCCC, Gasoline Dispensing Facilities, by January 10, 2011, for each affected gasoline dispensing facility including but not limited to the following:

[40 CFR 63.11110 through 63.11132]

- a. § 63.11110 What is the purpose of this subpart?
- b. § 63.11111 Am I subject to the requirements in this subpart?
- c. § 63.11112 What parts of my affected source does this subpart cover?
- d. § 63.11113 When do I have to comply with this subpart?
- e. § 63.11116 Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.
  - i. Minimize gasoline spills.
  - ii. Clean up spills as expeditiously as practicable.
  - iii. Cover all open gasoline containers and all gasoline storage tank fill-pipes when not in use.
  - iv. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
- f. § 63.11120 What testing and monitoring requirements must I meet?
- g. § 63.11124 What notifications must I submit and when?
- h. § 63.11125 What are my recordkeeping requirements?
- i. § 63.11126 What are my reporting requirements?
- j. § 63.11130 What parts of the General Provisions apply to me?

13. The permittee shall keep records of operations as listed below. These records shall be retained on-site or at a nearby field office for a period of at least five years following dates of recording and shall be made available to regulatory personnel upon request.

- a. Periodic emission testing for each engine and each replacement engine/turbine.
- b. For fuel(s) burned, the appropriate document(s) as described in Specific Condition No. 2.
- c. O&M log for any engine/turbine not tested in any quarter.
- d. Operating hours of engines/turbines which operated less than 220 hours and were not tested in a quarter.
- e. Condensate throughput (monthly and 12-month rolling total).
- f. Average natural gas throughput of the facility (monthly average).
- g. Glycol dehydration unit recirculation pump model and capacity (gpm).
- h. Records required by 40 CFR Pat 63, NESHAP, Subpart HH.
- i. Records required by 40 CFR Pat 63, NESHAP, Subpart CCCCCC.

14. This permit supersedes all other Air Quality permits for this facility, which are now null and void.

15. No later than 60 days after the issuance of this minor operating permit, 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 the Part 70 operating permit for the time period between the most recent certification of compliance and the issuance date of the synthetic minor permit. The certification of compliance shall also contain a report of all required monitoring not reported since the last semi-annual monitoring report.





# PERMIT

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

Permit No. 2009-172-O

Atlas Pipeline Mid-Continent, LLC,

having complied with the requirements of the law, is hereby granted permission to operate the Chaney Dell Compressor Station located in Section 35, T23N, R10W, Major County, Oklahoma, subject to the Specific Conditions and Standard Conditions dated September 1, 2009, both of which are attached.

\_\_\_\_\_  
Division Director

Air Quality Division

\_\_\_\_\_  
Date

**MINOR SOURCE PERMIT TO OPERATE / CONSTRUCT  
AIR POLLUTION CONTROL FACILITY  
STANDARD CONDITIONS  
(September 1, 2009)**

A. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ) in accordance with and under the authority of the Oklahoma Clean Air Act. The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. This specifically includes compliance with the rules of the other Divisions of DEQ: Land Protection Division and Water Quality Division.

B. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-7-15(g)) 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 252:100-7-15(f)]

C. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 60 days following the first day of operation. [OAC 252:100-7-18(a)]

D. Unless specified otherwise, the term of an operating permit shall be unlimited.

E. Notification to the Air Quality Division of DEQ of the sale or transfer of ownership of this facility is required and shall be made in writing by the transferor within 10 days after such date. A new permit is not required. [OAC 252:100-7-2(f)]

F. The following limitations apply to the facility unless covered in the Specific Conditions:

1. No person shall cause or permit the discharge of emissions such that National Ambient Air Quality Standards (NAAQS) are exceeded on land outside the permitted facility.

[OAC 252:100-3]

2. All facilities that emit air contaminants are required to file an emission inventory and pay annual operating fees based on the inventory. Instructions and forms are available on the Air Quality section of the DEQ web page. [www.deq.state.ok.us](http://www.deq.state.ok.us) [OAC 252:100-5]

3. All excess emissions shall be reported to the Director of the Air Quality Division as soon as practical during normal office hours and no later than the next working day following the malfunction or release. Within ten (10) business days further notice shall be tendered in writing containing specific details of the incident. [OAC 252:100-9]

4. 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]

5. No particulate emissions from new fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lbs/MMBTU. [OAC 252:100-19]

6. No discharge of greater than 20% opacity is allowed except for 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. [OAC 252:100-25]
  7. 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]
  8. No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lbs/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]
  9. 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 an organic material vapor-recovery system. [OAC 252:100-37-15(b)]
  10. 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]
- G. Any owner or operator subject to provisions of NSPS shall provide written notification as follows: [40 CFR 60.7 (a)]
1. A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
  2. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
  3. A notification of the actual date of initial start-up of an affected facility postmarked within 15 days after such date.
  4. If a continuous emission monitoring system is included in the construction, a notification of the date upon which the test demonstrating the system performance will commence, along with a pretest plan, postmarked no less than 30 days prior to such a date.
- H. Any owner or operator subject to provisions of NSPS shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility or any malfunction of the air pollution control equipment. [40 CFR 60.7 (b)]

I. Any owner or operator subject to the provisions of NSPS shall maintain a file of all measurements and other information required by this subpart recorded in a permanent file suitable for inspection. This file shall be retained for at least five years following the date of such measurements, maintenance, and records. [40 CFR 60.7 (f)]

J. Any owner or operator subject to the provisions of NSPS shall conduct performance test(s) and furnish to AQD a written report of the results of such test(s). Test(s) shall be conducted within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial start-up. [40 CFR 60.8]

Mr. Bret Peterson  
Atlas Pipeline Mid-Continent, LLC  
110 W 7<sup>th</sup> Street, Suite 2300  
Tulsa, OK 74119

Re: Permit No. **2009-172-O**  
Chaney Dell Compressor Station  
Section 35, Township 23N, Range 10W, Major County, Oklahoma

Dear Mr. Peterson:

Air Quality has received the permit application for the referenced facility and completed initial review. This application has been determined to be a Tier II application. In accordance with 27A O.S. 2-14-301 and 302 and OAC 252:4-7-13(c) the application and enclosed draft permit are now ready for public review. The requirements for public review of the application and draft permit include the following steps, which you must accomplish:

1. Publish at least one legal notice for the application and draft permit (one day) in at least one newspaper of general circulation within the county where the facility is located. (Instructions enclosed)
2. Provide for public review (for a period of 30 days following the date of the newspaper announcement) a copy of the application and draft permit at a convenient location (preferentially at a public location) within the county of the facility.
3. Send AQD a written affidavit of publication for the notices from Item #1 above together with any additional comments or requested changes, which you may have for the permit application within 20 days of publication.

The permit review time is hereby tolled pending the receipt of the affidavit of publication. Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact the permit writer at [eric.milligan@deq.ok.us](mailto:eric.milligan@deq.ok.us) or at (405) 702-4217.

Sincerely,

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

Enclosures