From: Marcelle Fiedler < Marcelle.Fiedler@nmgco.com>

**Sent:** Tuesday, March 17, 2015 10:17 AM

To: Braganza, Bonnie
Cc: Curtis Winner

**Subject:** Redonda Compressor Station

Hi Bonnie

Peter Ford forwarded this email to me as he is no longer the manager of this facility.

If you need additional information please let me know. The facility is still in operation and we have been awaiting a permit for the facility.

My contact information is below.

Marcelle Fiedler

From: Braganza, Bonnie [mailto:Braganza.Bonnie@epa.gov]

Sent: Monday, March 16, 2015 9:54 AM

To: Ford, Peter J.

Subject: Tribal synthetic minor permit- Redonda Compressor Station

I have started working on this permit but need additional information. Please let me know the status of this facility. Thank you.

Bonnie Braganza P.E. Air Permits US Environmental Protection Agency Region 6 1445 Ross Ave, Dallas TX 75202 214-665-7340

Marcelle Fiedler NMGC, Senior Environmental Scientist 7120 Wyoming Blvd. NE Ste 20

Albuquerque, NM 87109

Mailing address:

PO Box 97500, BC 22

Albuquerque, NM 87199-7500

w-505-697-3516

c-505-220-1056

f-505-697-4497

marcelle.fiedler@nmgco.com

# 1445 Ross Ave, Dallas TX 75202 214-665-7340

The world moves at such a rapid rate that waiting to implement changes will leave you two steps behind

From: Fiedler, Marcelle F. [mailto:MFFiedler@tecoenergy.com]

Sent: Tuesday, April 21, 2015 11:05 AM

**To:** Braganza, Bonnie **Cc:** Winner, Curtis J.

Subject: RE: Application information

#### Hi Bonnie

Attached is an excel spreadsheet (and a pdf version) with emission calculations for Redonda Compressor Station for the years we have complete data, as you requested.

Please let me know if you need anything else or have any questions.

Marcelle 505-697-3516

From: Braganza, Bonnie [mailto:Braganza.Bonnie@epa.gov]

Sent: Thursday, March 19, 2015 2:06 PM

To: Marcelle Fiedler

Subject: Application information

Please let me have a facility address. So far all I have is an approximate address in the application.

The new NSR information form is at:

# http://www.epa.gov/region6/6pd/air/pd-r/nsr-gen-app.pdf

The form is user "fillable". Note when filling it in indicate it is "other" as an attachment to the synthetic minor form. Thank you

Bonnie Braganza P.E. Air Permits US Environmental Protection Agency Region 6 1445 Ross Ave, Dallas TX 75202 214-665-7340

# Redonda

Yearly emissions calculations using manufacturers emissions factors without a safety factor and with a catalyst for Unit 2. Unit 2 factors assumed the reduction percentage per Miratech (86.3% for NOx and 86.2% for CO).

			Emis	sions		
		NO:	х	CO	١	NOx and CO
2014	2014	Manufacturers	Actual	Manufacturers	Actual	
	Hours of	emissions	Emissions	emissions	Emissions	
Redonda Unit	Operation	lb/hr	tpy	lb/hr	tpy	
Unit 1 - waukesha 7042						
GL - 1032 hp	3	4.7	0.01	8.3	0.01	0.02
Unit 2 - Waukesha						
L7044 GSI with						
catalyst	55	7.3	0.20	6.4	0.18	0.38
Total for Station 2014	58		0.21		0.19	0.40

			Emissions			
		NO:	x	CO		NOx and CO
2013	2013	Manufacturers	Actual	Manufacturers	Actual	
	Hours of	emissions	Emissions	emissions	Emissions	
Redonda Unit	Operation	lb/hr	tpy	lb/hr	tpy	
Unit 1 - waukesha 7042						
GL - 1032 hp	236	4.7	0.55	8.3	0.98	1.53
Unit 2 - Waukesha						
L7044 GSI with						
catalyst	185	7.3	0.68	6.4	0.59	1.27
Total for Station 2013	421		1.23		1.57	2.80

			Emis	sions		
		NO:	x	CO		NOx and CO
2012	2012	Manufacturers	Actual	Manufacturers	Actual	
	Hours of	emissions	Emissions	emissions	Emissions	
Redonda Unit	Operation	lb/hr	tpy	lb/hr	tpy	
Unit 1 - waukesha 7042						
GL - 1032 hp	187	4.7	0.44	8.3	0.78	1.22
Unit 2 - Waukesha						
L7044 GSI with						
catalyst	19	7.3	0.07	6.4	0.06	0.13
Total for Station 2012	206		0.51		0.84	1.35

			Emissions			
		NO:	х	CO		NOx and CO
2011	2011	Manufacturers	Actual	Manufacturers	Actual	
	Hours of	emissions	Emissions	emissions	Emissions	
Redonda Unit	Operation	lb/hr	tpy	lb/hr	tpy	
Unit 1 - waukesha 7042						
GL - 1032 hp	2289	4.7	5.38	8.3	9.50	14.88
Unit 2 - Waukesha						
L7044 GSI with						
catalyst	301	7.3	1.10	6.4	0.96	2.06
Total for Station 2011	2590		6.48		10.46	16.94

			Emissions			
		NO:	x	CO		NOx and CO
2010	2010	Manufacturers	Actual	Manufacturers	Actual	
	Hours of	emissions	Emissions	emissions	Emissions	
Redonda Unit	Operation	lb/hr	tpy	lb/hr	tpy	
Unit 1 - waukesha 7042						
GL - 1032 hp		4.7	11.51	8.3	20.33	31.84
Unit 2 - Waukesha						
L7044 GSI with						
catalyst	463	7.3	1.69	6.4	1.48	3.17
Total for Station 2010	5361		13.20		21.81	35.01

			Emis	sions		
		NO:	X	CO	١	NOx and CO
2008	2008	Manufacturers	Actual	Manufacturers	Actual	
	Hours of	emissions	Emissions	emissions	Emissions	
Redonda Unit	Operation	lb/hr	tpy	lb/hr	tpy	
Unit 1 - waukesha 7042						
GL - 1032 hp		4.7	4.11	8.3	7.26	11.37
Unit 2 - Waukesha						
L7044 GSI with						
catalyst	499	7.3	1.82	6.4	1.60	3.42
Total for Station 2008	2248		5.93		8.86	14.79

			Emis	sions		
		NO.	х	CO	)	NOx and CO
	2007					
2007	monthly	Manufacturers	Actual	Manufacturers	Actual	
	Hours of	emissions	Emissions	emissions	Emissions	
Redonda Unit	Operation	lb/hr	tpy	lb/hr	tpy	
Unit 1 - waukesha 7042						
GL - 1032 hp	2824	4.7	6.64	8.3	11.72	18.36
Unit 2 - Waukesha						
L7044 GSI with						
catalyst	1388	7.3	5.07	6.4	4.44	9.51
Total for Station 2007	4212		11.70		16.16	27.86

**From:** Fiedler, Marcelle F. <MFFiedler@tecoenergy.com>

**Sent:** Tuesday, April 21, 2015 10:27 AM

**To:** Braganza, Bonnie

Subject:RE: Application informationAttachments:nsr-gen-app-signed.pdf

#### **Bonnie**

I have completed the new EPA form for NSR permits in Indian Country for Redonda Compressor Station. Let me know if I missed something. I typed in the PTE and Allowable Emissions from our previous permit application. I will send you the emission inventory for Redonda in a separate email.

Marcelle

505-697-3516

From: Braganza, Bonnie [mailto:Braganza.Bonnie@epa.gov]

Sent: Thursday, March 19, 2015 2:06 PM

To: Marcelle Fiedler

**Subject:** Application information

Please let me have a facility address. So far all I have is an approximate address in the application.

The new NSR information form is at:

## http://www.epa.gov/region6/6pd/air/pd-r/nsr-gen-app.pdf

The form is user "fillable". Note when filling it in indicate it is "other" as an attachment to the synthetic minor form. Thank you

Bonnie Braganza P.E. Air Permits US Environmental Protection Agency Region 6 1445 Ross Ave, Dallas TX 75202 214-665-7340

From: Fiedler, Marcelle F. [mailto:MFFiedler@tecoenergy.com]

Sent: Tuesday, June 23, 2015 2:59 PM

**To:** Braganza, Bonnie **Subject:** RE: NGMC

#### **Bonnie**

Our catalyst has an air/fuel ration controller that adjusts the ratio of oxygen to fuel to maintain a balance of emissions. Note that the ratio of air to fuel changes with conditions such as load, speed and other factors.

An AFR controller is used to maintain a constant emission level of CO and NOx from the catalyst. The AFRC self regulates emissions by monitoring temperature and oxygen. The AFRC on our catalyst is set to maintain a voltage reading on the oxygen sensors that optimizes the performance of the engine and ensure that the catalyst is reducing our emissions. This is considered the optimum ratio and varies with operating conditions.

I do not have a flow diagram prepared for this station. I am working on getting one. marcelle

From: Braganza, Bonnie [mailto:Braganza.Bonnie@epa.gov]

Sent: Tuesday, June 23, 2015 1:48 PM

**To:** Fiedler, Marcelle F. **Subject:** RE: NGMC

See below my response and additional question. If I had a flow diagram with all the ins and outputs, I probably would not have so many questions. But it is nice to look into it as well. Thank you for your response on the compressor engines because that is important to put in the draft permit equipment description.

Bonnie Braganza P.E. Air Permits US Environmental Protection Agency Region 6 1445 Ross Ave, Dallas TX 75202 214-665-7340

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From: Fiedler, Marcelle F. [mailto:MFFiedler@tecoenergy.com]

Sent: Tuesday, June 23, 2015 2:12 PM

**To:** Braganza, Bonnie **Subject:** RE: NGMC

## **Bonnie**

I have answered 2 of your questions below and asked you a question regarding the annual fuel usage (question 2). marcelle

From: Braganza, Bonnie [mailto:Braganza.Bonnie@epa.gov]

Sent: Monday, June 22, 2015 9:00 AM

To: Fiedler, Marcelle F. Subject: NGMC Importance: High

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Marcelle: Additional guestions and limits to be included in the permit

- What is the difference in the two compressors? I guess when you give me the age of the compressors, it may
  be visible. Why does one use catalyst and the other not unless it is much newer with lower emissions. Unit 1 is
  a lean burn engine and Unit 2 is rich burn. The main difference is the lean burn has much lower
  uncontrolled emission rates and does not need a catalyst.
- 2. What is the annual maximum natural gas fuel used in your calculations for the generator and 2 compressors? This will be included as a 12 month rolling average for continuous monitoring. Do you want to know the annual fuel used if the compressors and generator were in operation 8760?[Braganza, Bonnie] Yes- It should be based on the calculations provided and if different you may need to change your calculations.
- 3. What is the optimum AFR for Unit 2. I believe the testing provided for this unit will be adequate so long as the test meet the EPA standards. I am looking into this question.[Braganza, Bonnie] How does this control help in determining catalytic converter efficiency? I need to provide one or two sentences on the catalytic converter operation and relationship to the APR.
- 4. What is the final disposal of the wastewater and I will need some sample for determination of no VOC emissions as in the application. The wastewater tank at Redonda collects rainwater from the compressor skids. A water and oil recycling company, Thermo Fluids, comes and removes the water from the wastewater tank to recycle it. [Braganza, Bonnie] I should have asked the same for the other tank fluids, used oil from compressor maintenance. Also do not forget to give me descriptions of the tanks. I understand that liquid tank is a fixed roof and you have one pressurized mercapton tank- What is the ethylene glycol and any other fluids stored and used in the facility.
- 5. Other requests as sent and also please send me details on the 3 section tank that you discussed with me on our last phone conversation.

Thank you and I hope you had a nice weekend.

I am trying to get this off my desk for our internal review by the middle of next week so appreciate your cooperation.

Bonnie Braganza P.E. Air Permits US Environmental Protection Agency Region 6 1445 Ross Ave, Dallas TX 75202 214-665-7340

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**From:** Fiedler, Marcelle F. <MFFiedler@tecoenergy.com>

**Sent:** Tuesday, June 23, 2015 3:10 PM

To: Braganza, Bonnie

**Subject:** RE: NGMC

I am still trying to find out when the tanks were installed and provide the information for you in the table you sent. But I wanted to send you this explanation to hopefully clean up some questions.

Info on the tanks:

Pipeline quality gas enters the facility from the north and passes through an inlet filter. Liquids removed from the gas are transferred to a scrubber dump tank via 2-inch underground pipes. Dry gas is routed to the compressor engines, compressed, and then returned to the main pipeline for transport.

Fresh water is used to clean or wash-down the compressor engines and floors of the compressor building. Contaminants in the water consist of dirt and small amounts of lubricating oil that may spill onto the floor of the compressor building during routine maintenance. The usage rate of wash-down water is estimated at 50 gallons per month. The used water is stored in a used water tank.

The engine oil utilized in the compressor engines is changed based on compressor run-time and used at a rate of 200 gallons per month. The used oil is transferred to a used oil tank. Crank case oil, compressor oil, and filter separators are used at the facility as through-flow, and although they do contain oil, they are not considered further in this SPCC Plan.

A glycol coolant (Ambitrol) is added to the compressors via 2-inch underground pipelines as evaporation takes place. The replacement rate of the coolant is estimated to be 20 gallons per month.

Glycol and lube oil is stored in a compartmentalized tank. The compartments of this tank include storage for: 3000-gallon ethylene glycol FL-50; 1000-gallon Pegasus 89 lube oil; and 2000-gallon Pegasus 805 lube oil.

From: Braganza, Bonnie [mailto:Braganza.Bonnie@epa.gov]

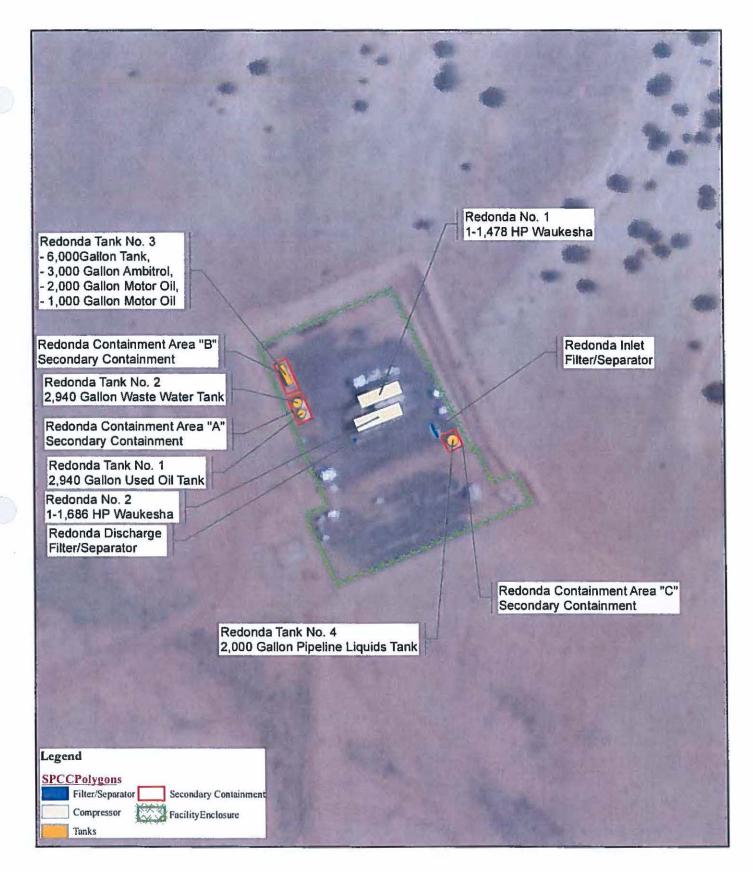
**Sent:** Tuesday, June 23, 2015 2:00 PM

**To:** Fiedler, Marcelle F. **Subject:** RE: NGMC

Thanks for the information on the working of the catalytic converter. You will see it added to the project description in the permit.

Bonnie Braganza P.E. Air Permits US Environmental Protection Agency Region 6 1445 Ross Ave, Dallas TX 75202 214-665-7340

The world moves at such a rapid rate that waiting to implement changes will leave you two steps behind



# **Redonda Compressor Station**

Figure 2: SPCC Aerial Site Plan

Tuesday, October 25, 2011 Map Scale = 1: 1,500 USGS Quad: South Garcia





**From:** Fiedler, Marcelle F. <MFFiedler@tecoenergy.com>

**Sent:** Thursday, June 25, 2015 4:01 PM

**To:** Braganza, Bonnie

**Subject:** RE: Application information

Attachments: Tand E and archeological review Redonda.pdf; redonda arch map.pdf; Pages from Land

Lease - POL NMGC.pdf

#### Hi Bonnie

I am still working on a flow diagram and getting the years for the tanks. But here are answers to your most of your questions. The calculations for the emergency generator were based on a 500 hour limit. I am not sure if that was made clear.

I have been informed that the mercaptan tank is not part of the compressor station but is part of the city gate transfer station adjacent to the compressor station. The compressor station does not use the mercaptan. So I am suggesting we remove the mercaptan tank from the list of tanks.

I am reviewing the draft permit you sent and will have some questions for you. When do you leave on vacation? marcelle

From: Braganza, Bonnie [mailto:Braganza.Bonnie@epa.gov]

Sent: Friday, June 12, 2015 10:53 AM

To: Fiedler, Marcelle F.

Subject: RE: Application information

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I am now working on drafting your permit. There is information I need.

1. Please provide a process description, a block and process diagram of your operations to include the feed source to the product destination,

Compressor stations pump gas through a transmission pipeline by compressing the gas at intervals along the system. Gas flows by expanding in the pipe from the discharge side (high pressure point) of one station to the suction side (low pressure point) of the next. Under normal operating conditions, compressor station engines run 24 hours a day, seven days a week, 365 days a year. NMGC's compressor stations are monitored at all times from the company's gas control centers. While stations vary according to the number and types of engines they use, most compressor stations consist of piping, engines, compressors, fuel gas systems, lube oil systems, engine jacket water systems, electrical generators, safety systems, and personnel to maintain and operate these elements. Redonda Compressor station is a receipt and delivery point on the NMGC pipeline to transport natural gas into or out of the NMGC transmission pipeline system.

#### 1. Station Yard Piping

Natural gas enters and exits the compressor station through station yard piping. Gas enters the station at the suction header. From there, gas passes through the scrubbers, which remove any solids and most liquids from the gas. Because

the temperature of natural gas rises when it is compressed, high-pressure gas coolers may be used to lower the temperature of the gas before it is discharged into the main pipeline. Cooling helps preserve the pipe's anti-corrosion coating and allows for the transportation of greater volumes, for gas is denser at lower temperatures. From the cooling system, gas flows to the station discharge point, and enters the main line.

## 2. Engine and Compressor Sets

The engine and compressor are the main components of the station. As gas travels through the pipeline, its pressure drops. The compressor increases the pressure of the gas as it moves to the discharge side of the station, enabling the gas to continue its journey.

Coordinating with gas control, a station will run only those engine-compressor sets needed to handle the volume of gas currently flowing through the pipeline and as a result the compressors may not operate 24 hours a day, seven days a week, 365 days a year.

## 3. Fuel Gas System

The compressor station engines are fueled by natural gas from the pipeline.

## 4. Lube Oil System

The lube oil system lubricates and protects all moving and rotating parts in the engine and compressor set. Each engine has its own lube oil system that maintains specific oil levels and temperatures in each compressor crankcase. This oil also helps cool the engines. When an engine's oil is changed, the old oil is removed by a vendor for reprocessing.

## 5. Jacket Water System

Water circulated through the engines as a coolant is called jacket water. After the water picks up heat from the engine, it runs through an atmospheric cooler where the heat is removed. The jacket water is then circulated back through the compressor engine. Additives in the water prevent corrosion inside the engine and piping.

## 6. Electrical Generator

The electrical generator is only used as a backup energy source in the event of an electrical outage. Electricity is necessary to operate the Redonda Compressor Station to provide lighting, for radio and phone equipment, and to power remote terminal units to control flow, pressure and speed of the compressors and to power the electronic flow measurement equipment.

## 7. Safety Systems

To protect the public, company personnel, and property, all compressor stations are equipped with several safety devices. One of these safety systems, common to all compressor stations, is an Emergency Shutdown System. When activated, the Emergency Shutdown System stops the engines, isolates and vents the compressor piping, and routes the gas away from the station. During the venting process, natural gas is released through a stack in a remote area of the plant yard. Because of the required venting, some noise can result from compressor maintenance, activation, or Emergency Shutdown System testing.

#### 8. Personnel

NMGC compression supervisors work directly with the local technicians who operate and maintain the equipment at the compressor stations and on the pipeline. Redonda is a remote station that can only be started by a technician on site. Once in operation, the station is not manned and the compressor's operation (pressure and shut down) can be controlled remotely. Trained engineers support the operating areas to keep all systems in top condition. With this complex and highly specialized system, NMGC moves natural gas safely and reliably from producers to customers.

2. What is the annual maximum natural gas fuel used in your calculations for the generator and 2 compressors? This will be included as a 12 month rolling average for continuous monitoring. See inserted column in table below.

3. Please fill in the appropriate information in the table. Please provide the typical type of catalyst used.

	11 1	· · · · · · · · · · · · · · · · · · ·	71 71	/	
Equipment Type	Emission Point identification number (EPN)	Construction date/Serial Number(SN) or Manufacturer's name/type	Capacity	Control equipment	Annı Fuel
Gas fired Waukesha L compressor	Unit 1	Installed 1991 SN:335791	1478 BHP 10.3 MMbtu/hr	None	100.0 MMo year

1 1		1	1	Í	c=c=
					8760
					of
Gas fired		+ +	1680 BHP	Catalyst	oper
Gas fired Waukesha L	Unit 2	Sanial # C 12019/2	1680 BHP 12.3	Catalyst	120.0
	Unit 2	Serial # C-13018/2 Installed 2001		for NOx,	MMo
7044		installed 2001	MMBtu/hr	CO, & VOC	year
compressor					assui
utilizing ??					8760 of
catalyst					
Confined	Thats 9	C:! # 200202F	EO ODLID		oper
Gas fired	Unit 3	Serial # 3903035	50.8BHP		3.77
Baldor/GM		Installed 2012	0.4 MMbtu/hr		MM
emergency					year
generator					assui
					8760
					of
					oper
					or 0.
					assui
					500 l
					of
					oper
<b>81</b> 10 1		+ +	2000 11		year
Pipeline		Above ground	2000 gallons	emissions	
liquids tank	TK1	Year of installation??		less than 1	
				tpy	
<b>Mercaptan</b>	<del>TK2</del>	Above ground, upright	<del>250 gallons</del>	Not a	This
· ·			<u> </u>		
tank		<del>closed tank</del>	<u> </u>	source of	not p
· ·					not p the
· ·				source of	not p the comp
· ·				source of	not p the comp statio
· ·				source of	not p the comp station part
· ·				source of	not p the comp station part adjace
· ·				source of	not p the comp station part adjace city g
· ·				source of	not p the comp station part adjact city g
tank		closed tank		source of emissions	not p the comp station part adjace city g
tank  143 bbl	TK3	Above ground closed, steel	6000 gallons	source of emissions  Ambitrol	not p the comp station part adjact city g
tank  143 bbl  Ambitrol		Above ground closed, steel compartmentalized tank/	6000 gallons (3000, 2000,	Ambitrol emissions	not p the comp station part adjact city g
143 bbl Ambitrol and lube oil		Above ground closed, steel	6000 gallons (3000, 2000, 1000 gallon	Ambitrol emissions less than 1	not p the comp station part adjact city g
143 bbl Ambitrol and lube oil tank		Above ground closed, steel compartmentalized tank/ year ???	6000 gallons (3000, 2000, 1000 gallon compartments)	Ambitrol emissions less than 1 tpy	not p the comp station part adjact city g
143 bbl Ambitrol and lube oil tank Wastewater		Above ground closed, steel compartmentalized tank/ year ???	6000 gallons (3000, 2000, 1000 gallon	Ambitrol emissions less than 1 tpy Double	not p the comp station part adjac city g
143 bbl Ambitrol and lube oil tank		Above ground closed, steel compartmentalized tank/ year ???	6000 gallons (3000, 2000, 1000 gallon compartments)	Ambitrol emissions less than 1 tpy Double walled,	not p the com stati part adja city g
143 bbl Ambitrol and lube oil tank Wastewater		Above ground closed, steel compartmentalized tank/ year ???	6000 gallons (3000, 2000, 1000 gallon compartments)	Ambitrol emissions less than 1 tpy Double walled, Double	not p the comp station part adjac city g
143 bbl Ambitrol and lube oil tank Wastewater		Above ground closed, steel compartmentalized tank/ year ???	6000 gallons (3000, 2000, 1000 gallon compartments)	Ambitrol emissions less than 1 tpy Double walled, Double bottomed.	not p the comp station part adjact city g
143 bbl Ambitrol and lube oil tank Wastewater		Above ground closed, steel compartmentalized tank/ year ???	6000 gallons (3000, 2000, 1000 gallon compartments)	Ambitrol emissions less than 1 tpy Double walled, Double bottomed. Not a	not p the comp station part adjact city g
143 bbl Ambitrol and lube oil tank Wastewater		Above ground closed, steel compartmentalized tank/ year ???	6000 gallons (3000, 2000, 1000 gallon compartments)	Ambitrol emissions less than 1 tpy Double walled, Double bottomed.	not p the comp station part adjac city g
143 bbl Ambitrol and lube oil tank Wastewater tank		Above ground closed, steel compartmentalized tank/ year ???	6000 gallons (3000, 2000, 1000 gallon compartments)	Ambitrol emissions less than 1 tpy Double walled, Double bottomed. Not a	not p the comp station part adjac city g
143 bbl Ambitrol and lube oil tank Wastewater		Above ground closed, steel compartmentalized tank/ year ???	6000 gallons (3000, 2000, 1000 gallon compartments)	Ambitrol emissions less than 1 tpy Double walled, Double bottomed. Not a source of	not p the comp station part adjac city g
143 bbl Ambitrol and lube oil tank Wastewater tank		Above ground closed, steel compartmentalized tank/ year ???  Partially buried open steel tank/ year??	6000 gallons (3000, 2000, 1000 gallon compartments) 2940	Ambitrol emissions less than 1 tpy Double walled, Double bottomed. Not a source of emissions	not p the comp station part adjac city g
143 bbl Ambitrol and lube oil tank Wastewater tank		Above ground closed, steel compartmentalized tank/ year ???  Partially buried open steel tank/ year??	6000 gallons (3000, 2000, 1000 gallon compartments) 2940	Ambitrol emissions less than 1 tpy Double walled, Double bottomed. Not a source of emissions Double	not p the comp station part adjact city g
143 bbl Ambitrol and lube oil tank Wastewater tank		Above ground closed, steel compartmentalized tank/ year ???  Partially buried open steel tank/ year??	6000 gallons (3000, 2000, 1000 gallon compartments) 2940	Ambitrol emissions less than 1 tpy Double walled, Double bottomed. Not a source of emissions Double walled,	not p the comp station part adjact city g
143 bbl Ambitrol and lube oil tank Wastewater tank		Above ground closed, steel compartmentalized tank/ year ???  Partially buried open steel tank/ year??	6000 gallons (3000, 2000, 1000 gallon compartments) 2940	Ambitrol emissions less than 1 tpy Double walled, Double bottomed. Not a source of emissions Double walled, Double	not p the comp station part adjact city g

4. Please explain how you store two different type of materials in one tank- ethylene glycol and lube oil? Pipeline quality gas enters the facility from the north and passes through an inlet filter. Liquids removed from the gas are transferred to a scrubber dump tank via 2-inch underground pipes. Dry gas is routed to the compressor engines, compressed, and then returned to the main pipeline for transport.

Fresh water is used to clean or wash-down the compressor engines and floors of the compressor building. Contaminants in the water consist of dirt and small amounts of lubricating oil that may spill onto the floor of the compressor building during routine maintenance. The usage rate of wash-down water is estimated at 50 gallons per month. The used water is stored in a used water tank.

The engine oil utilized in the compressor engines is changed based on compressor run-time and used at a rate of 200 gallons per month. The used oil is transferred to a used oil tank. Crank case oil, compressor oil, and filter separators are used at the facility as through-flow, and although they do contain oil, they are not considered further in this SPCC Plan.

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Glycol and lube oil is stored in a compartmentalized tank. The compartments of this tank include storage for: 3000-gallon ethylene glycol FL-50; 1000-gallon Pegasus 89 lube oil; and 2000-gallon Pegasus 805 lube oil.

- 5. It appears that without the catalyst control on the 7044 compressor the facility would be major for HAP. The HAP calculations provided in the application are uncontrolled.
- 6. When did you sample the wastewater and what is the content of VOC? Thermo Fluids sampled the wastewater before picking it up the first time.
- 7. If you have any documents that have been approved by the tribal government for operation or construction please send them to me. Attached is an excerpt of our lease with Laguna. This is a confidential document so I have included only a few pertinent pages.

Also any prior documents of archeological or biological surveys may be needed to determine the ESA and NHPA effects. Attached are the documents I sent you before. I do not have or know or any other reports for biology or archeology.

I realize you did send me information. I will have our ESA and NHPA contact you after I proceed writing the permit. But these documents will be helpful.

I may have more requests as I continue to process the draft permit.

Thank you for your cooperation.

Bonnie Braganza P.E. Air Permits US Environmental Protection Agency Region 6 Subject: NGMC Importance: High

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Marcelle: Additional questions and limits to be included in the permit

- What is the difference in the two compressors? I guess when you give me the age of the compressors, it may be visible. Why does one use catalyst and the other not unless it is much newer with lower emissions. Unit 1 is a lean burn engine and Unit 2 is rich burn. The main difference is the lean burn has much lower uncontrolled emission rates and does not need a catalyst.
- 2. What is the annual maximum natural gas fuel used in your calculations for the generator and 2 compressors? This will be included as a 12 month rolling average for continuous monitoring. Do you want to know the annual fuel used if the compressors and generator were in operation 8760?[Braganza, Bonnie] Yes- It should be based on the calculations provided and if different you may need to change your calculations.
- 3. What is the optimum AFR for Unit 2. I believe the testing provided for this unit will be adequate so long as the test meet the EPA standards. I am looking into this question.[Braganza, Bonnie] How does this control help in determining catalytic converter efficiency? I need to provide one or two sentences on the catalytic converter operation and relationship to the APR.
- 4. What is the final disposal of the wastewater and I will need some sample for determination of no VOC emissions as in the application. The wastewater tank at Redonda collects rainwater from the compressor skids. A water and oil recycling company, Thermo Fluids, comes and removes the water from the wastewater tank to recycle it. [Braganza, Bonnie] I should have asked the same for the other tank fluids, used oil from compressor maintenance. Also do not forget to give me descriptions of the tanks. I understand that liquid tank is a fixed roof and you have one pressurized mercapton tank- What is the ethylene glycol and any other fluids stored and used in the facility.
- 5. Other requests as sent and also please send me details on the 3 section tank that you discussed with me on our last phone conversation.

Thank you and I hope you had a nice weekend.

I am trying to get this off my desk for our internal review by the middle of next week so appreciate your cooperation.

Bonnie Braganza P.E. Air Permits US Environmental Protection Agency Region 6 1445 Ross Ave, Dallas TX 75202 214-665-7340

The world moves at such a rapid rate that waiting to implement changes will leave you two steps behind

US Environmental Protection Agency Region 6 1445 Ross Ave, Dallas TX 75202 214-665-7340

The world moves at such a rapid rate that waiting to implement changes will leave you two steps behind

From: Fiedler, Marcelle F. [mailto:MFFiedler@tecoenergy.com]

Sent: Friday, February 19, 2016 1:51 PM

To: Braganza, Bonnie < Braganza.Bonnie@epa.gov >

Subject: RE: Quick clarification

PNM stands for Public Service Company of New Mexico

From: Braganza, Bonnie [mailto:Braganza.Bonnie@epa.gov]

Sent: Friday, February 19, 2016 12:26 PM

**To:** Fiedler, Marcelle F. **Subject:** Quick clarification

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Please let me know what PNM resources stand for which is in your original permit application as an acquisition. We need to define all acronyms. Thanks

Bonnie Braganza P.E. Air Permits US Environmental Protection Agency Region 6 1445 Ross Ave, Dallas TX 75202 214-665-7340

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#### **Record Of Communication**

February 18, 2016 10:00am CST

Conference call with NMGC representatives

Attendees: EPA Bonnie Braganza

NMGC Marcelle Fiedler, Curtis\_\_\_\_ and Alexander Kennedy

Purpose: To obtain general operating information on the compressor station

Summary of discussion:

NGMC indicated that this is a local distribution company that provides natural gas service to 19 tribes in New Mexico. The compressors are only needed when additional compression in the pipeline is needed. The compression station ties into the pipelines of Transwestern and El Paso companies.

The compressors are started up by an operator that receives an alarm signal at a remote 24 hour manned station. This is about 45 minutes from the compression station. Prior to start-up, the operator does a maintenance and operational readiness inspection for both the compressors.

The compressors are only needed to boost the flow and pressure in the pipelines servicing the general areas to 700 psig. Estimated maximum rate to Unit 1 is 40MMSCF/day and Unit 2 is 70MMSCF/day.

Minimization of pollutants is done by internal air/fuel ratios. There is an oxygen sensor in Unit 2 to maintain the efficiency of the catalytic converter. Catalyst efficiency is also determined manually by the temperature difference between the inlet flow and the exit flows.

The emergency generator was installed in 2013 and is certified to comply with the EPA NSPS JJJJ regulation. The generator is used for general lighting and in the control room for instrumentation control etc.

Bonnie indicated the time line regarding the permit issuance.

- 1. Internal Region 6 policy for Tribal consultation for 30 days with the adjacent tribes;
- 2. Preparation of the draft permit and TSD for internal review (30days) that can be done simultaneously with the R6 Tribal policy.
- 3. Permitting documents to NMGC for review possibly by third week in March.
- 4. Public notice, electronic or newspaper will be determined by EPA management and the tribal office.
- 5. 30 day public comment period.
- 6. If no comments or concerns are raised during the public comment period, permit can be issued within 10 working days.

Fiedler, Marcelle F. < MFFiedler@tecoenergy.com> From:

Sent: Thursday, March 03, 2016 3:00 PM

To: Braganza, Bonnie Subject: RE: Quick clarification **Attachments:** Redondatitle.jpg

Here is a jpg of the flow diagram.

Marcelle

From: Braganza, Bonnie [mailto:Braganza.Bonnie@epa.gov]

Sent: Monday, February 22, 2016 2:44 PM

To: Fiedler, Marcelle F.

Subject: RE: Quick clarification

Can you send it as a jpeg or png file. Sure appreciate this.

Also I realize that the Baldor generator /engine is certified, but may require testing per 40 CFR 1048.101(c)? Otherwise please cite the exemption and subpart regulation applicable to this engine. Thank you.

Bonnie Braganza P.E.

Air Permits **US Environmental Protection Agency** Region 6 1445 Ross Ave, Dallas TX 75202

214-665-7340

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From: Fiedler, Marcelle F. [mailto:MFFiedler@tecoenergy.com]

Sent: Monday, February 22, 2016 10:57 AM

To: Braganza, Bonnie < Braganza. Bonnie @epa.gov>

Subject: RE: Quick clarification

Hi Bonnie

Sorry I was gone Friday when I received your email. Not sure you still need it but here is a flow diagram.

Marcelle

From: Braganza, Bonnie [mailto:Braganza.Bonnie@epa.gov]

Sent: Friday, February 19, 2016 2:49 PM

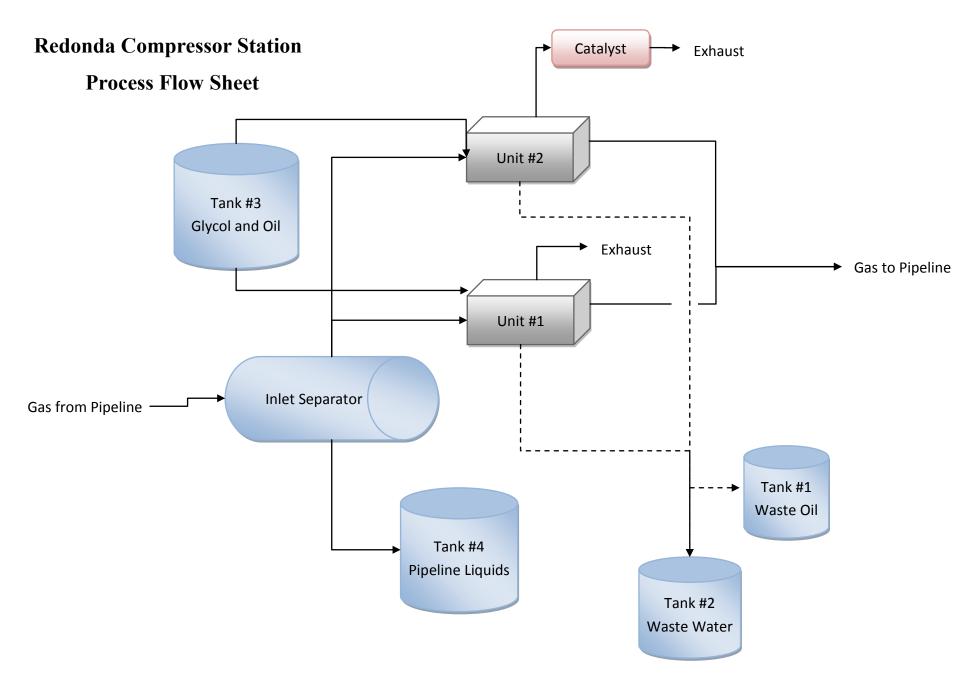
**To:** Fiedler, Marcelle F.

Subject: RE: Quick clarification

Thanks. I am not sure but did you send me a process diagram. I was trying to find it in my saved emails since I am working from an alternate place. If you did please resend, if not do not worry, I probably can work without it. Thank you

Bonnie Braganza P.E.

**Air Permits** 



From: Fiedler, Marcelle F.
To: Braganza, Bonnie
Subject: Re: Question

**Date:** Thursday, May 19, 2016 11:01:09 AM

We do not have propane tanks. The emergency generator will use only natural gas.

Marcelle Fiedler (505)220-1056 Sent from my iPhone

On May 19, 2016, at 11:56 AM, Braganza, Bonnie < Braganza.Bonnie@epa.gov > wrote:

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The emergency generator can also use propane gas. Do you have propane storage tanks or will it only operate on natural gas? In an emergency outage will this generator use propane? I understand that it is only being used for powering the instrumentation and lighting for the facility with a power outage.

Bonnie Braganza P.E. Air Permits US Environmental Protection Agency Region 6 1445 Ross Ave, Dallas TX 75202 214-665-7340

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