

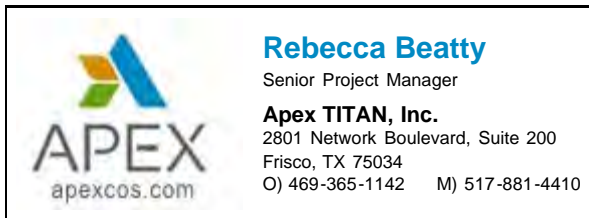
From: Rebecca Beatty <RBeatty@apexcos.com>
Sent: Wednesday, August 26, 2015 11:05 AM
To: Magee, Melanie
Cc: shrishti_chhabra@kindermorgan.com
Subject: Copano - PSD-TX-104949-GHG Rescission Request
Attachments: TRV 104949 082012.docx; Registration 104949 082012.pdf; TRV 104949 070314.docx; Registration 104949 070314.pdf; Registration 101369 080812.pdf

Good morning, Melanie.

As I mentioned on the phone, the flare is authorized under a different standard permit registration. The RTO authorized under standard permit registration 104949 in 2012 was removed from the same registration in 2014. Copano elected to install an electric compressor to pressurize the amine unit acid gas stream and route it to the sales gas pipeline rather than combusting it onsite.

I have attached copies of the TCEQ tech reviews and issued standard permit registration letters for both the 2012 and 2014 projects involving registration number 101369. I have also attached a copy of the issue letter for standard permit registration number 101369, which authorizes the flare.

Please let me know if you need any additional information. Thank you!



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**TECHNICAL REVIEW: STANDARD PERMIT FOR
INSTALLATION AND/OR MODIFICATION OF OIL AND GAS FACILITIES**

Permit No.:	104949	Company Name:	Copano Processing, L.P.	APD Reviewer:	Mr. Guillermo Reyes, P.E.
Project No.:	178074	Site/Area Name:	Copano Processing Houston Central Gas Plt	SP No.:	6002 - (PRE 2011-FEB-27).

GENERAL INFORMATION			
Regulated Entity No.:	RN101271419	Project Type:	Standard Permit Application
Customer Reference No.:	CN601465255	Date Received by TCEQ:	May 16, 2012
Account No.:	CR-0020-C	Date Received by Reviewer:	July 09, 2012
City/County:	Sheridan, Colorado County	Physical Location:	1650 County Rd 255 South

CONTACT INFORMATION			
Responsible Official/Primary Contact Name and Title:	Mr. Rex J Prosser Sr Director EH&SSCorporate	Phone No.: Fax No.:	(713) 621-9547 (713) 737-9081 Email:
Technical Contact/Consultant Name and Title:		Phone No.: Fax No.:	Email:

GENERAL RULES CHECK	YES	NO	COMMENTS
Is confidential information included in the application?		X	
Are there associated NSR or Title V permits at the site?	X		<i>The site operates under NSR permits 56613, 17117, 96187 and 17554/PSD-TX-709MI. Permit No. 56613 is affected. The site operates under standard permits No. 101369 and 96187. The site operates under PBR's 50221, 102105, 102542, 101750. The site operates under Title V permit No. O-00807 (SOP) and O-00871 (GOP)</i>
Is the application for renewal of an existing standard permit?		X	
Do NSPS, NESHAP, or MACT standards apply to this registration?	X		<i>Turbines NSPS KKKK Fugitives NSPS KKK</i>
Is the following documentation included with this registration? 1. The General Requirements Checklist demonstrating compliance with 30 TAC §§ 116.110 and 116.601-615 2. Process description 3. Project description 4. Descriptions of any equipment being installed 5. Emissions calculations including the basis of the calculations 6. Emission increases and/or decreases associated with this project (quantified) 7. Description of efforts to minimize any collateral emissions or collateral increases	X		<i>If NO, note any requests for additional information and date received:</i>
Are any requirements of 116.110 circumvented by: (1) artificially limiting feed or production rates below the maximum capacity of the project's equipment; (2) claiming a limited chemical list; or (3) dividing and registering a project in separate segments?		X	<i>If YES, are the limits intended to allow the project to move forward while waiting for a permit or permit amendment that will allow full-scale operations, particularly when the project would not be economically feasible until fully authorized?</i>

STANDARD PERMIT RULES CHECK:	YES	NO	COMMENTS
Does the facility meet the § 116.14(2) definition of an Oil & Gas facility?	X		
Are there any net increases in emissions associated with this registration?	X		<i>If YES, list contaminant and associated emission limit in §§ 106.261(3) or (4) or 106.262(3):</i>
Does the facility vent or flare more than 0.3 long tons of sulfur (other than Sulfur Dioxide) per day?		X	
Are all emissions of sulfur compounds (other than SO2 and fugitives) controlled?		X	<i>If NO, list the emission rate (must be ≤4 lb/hr):</i>
Are all vents that emit sulfur compounds (other than SO2 and fugitives) to the atmosphere at least 20 feet above ground level (excluding emergency safety relief valves)?	X		<i>List vent heights: > 20 FT.</i>
Are there new or modified internal combustion reciprocating engines or gas turbines at the facility?	X		<i>TURBINES = Hp= 15,000 Fuel type=natural gas NOX emission factor=0.125 g/hp-hr</i>

**TECHNICAL REVIEW: STANDARD PERMIT FOR
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Project No.:	178074	Site/Area Name:	Copano Processing Houston Central Gas Plt	SP No.:	6002 - (PRE 2011-FEB-27).

Is there a natural gas glycol dehydration unit at the site that emits >10 tpy of VOCs?		X	<i>If YES, mark the type of control device used.</i> <input type="checkbox"/> flash tank <input type="checkbox"/> Vapor Recovery Unit <input type="checkbox"/> VOC destruction device <input type="checkbox"/> other															
Are any combustion units with a design maximum heat input value > 40 MBtu/hr at the site (other than flares, internal combustion engines, or natural gas turbines)?		X	<i>If YES, list NO, emissions in pounds per MBtu. (must be < 0.06 lb/MBtu):</i>															
Are VOC process fugitive emissions uncontrolled? <i>If YES, mark applicable inspection and repair requirements.</i> [§ 116.620(c)(1) or § 116.620(c)(2)]	X		<table border="1"> <thead> <tr> <th>VOCs (tpy)</th> <th>receptor < 500'</th> <th>receptor ≥500'</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> <10</td> <td>no LDAR</td> <td>no LDAR</td> </tr> <tr> <td><input type="checkbox"/> 10≤25</td> <td>28M [(c)(1)]</td> <td>no LDAR</td> </tr> <tr> <td><input type="checkbox"/> 25≤40</td> <td>28VHP [(c)(2)]</td> <td>28M [(c)(1)]</td> </tr> <tr> <td><input type="checkbox"/> >40</td> <td>28VHP [(c)(2)]</td> <td>28VHP [(c)(2)]</td> </tr> </tbody> </table>	VOCs (tpy)	receptor < 500'	receptor ≥500'	<input checked="" type="checkbox"/> <10	no LDAR	no LDAR	<input type="checkbox"/> 10≤25	28M [(c)(1)]	no LDAR	<input type="checkbox"/> 25≤40	28VHP [(c)(2)]	28M [(c)(1)]	<input type="checkbox"/> >40	28VHP [(c)(2)]	28VHP [(c)(2)]
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Are all components in sweet crude oil or gas service (defined in 30 TAC Chapter 101)? <i>If NO, mark applicable inspection and monitoring requirements.</i> [§§ 116.620(c)(3) and 116.620(e)(1)]	X		<table border="1"> <thead> <tr> <th>RECEPTOR</th> <th>APPLICABLE REQUIREMENT</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> < ¼ mile</td> <td>§ 116.620(c)(3)</td> </tr> <tr> <td><input type="checkbox"/> ≥ ¼ mile</td> <td>§ 116.620(c)(3) or (e)(1)</td> </tr> </tbody> </table>	RECEPTOR	APPLICABLE REQUIREMENT	<input type="checkbox"/> < ¼ mile	§ 116.620(c)(3)	<input type="checkbox"/> ≥ ¼ mile	§ 116.620(c)(3) or (e)(1)									
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Are there flares at the facility?		X	<i>If YES, fill in the appropriate data.</i> <i>Minimum heating value of waste gas:</i> <i>Is gas necessary for adequate combustion?</i> <i>Maximum tip velocity:</i> <i>Method of pilot flame monitoring:</i>															
Is a flare the only combustion unit at the site?		No	<i>If NO, mark the fuel type for all combustion units.</i> <input checked="" type="checkbox"/> sweet natural gas <input type="checkbox"/> liquid petroleum gas <input type="checkbox"/> fuel gas ≤10 grains total sulfur/100 dscf or ≤30 grains total sulfur/100 dscf <input type="checkbox"/> field gas >1.5 grains H ₂ S/100 dcfm or >30 grains total sulfur/100 dscf (recordkeeping requirements of § 116.620(a)(18) applicable)															
Are all storage tanks onsite either (1) pressurized; (2) < 25,000 gallons in size; or (3) used for storage of compounds with vapor pressures < 0.5 psia?	X		<i>If NO, mark the applicable control.</i> <input type="checkbox"/> internal floating roof [§ 116.620(b)(1)(A) & (C)] <input type="checkbox"/> external floating roof [§ 116.620(b)(1)(B) & (C)] <input type="checkbox"/> VOC destruction device with 98% destruction efficiency <input type="checkbox"/> Vapor Recovery System with 95% recovery efficiency															
Are there any fixed roof storage tanks onsite that emit > 10 tpy VOCs or sulfur compounds?		X	<i>If YES, list the type of control device and its efficiency [§ 116.620(b)(1)(D)]:</i>															

DESCRIBE OVERALL PROCESS AT THE SITE

Copano Processing, L.P. owns and operates the Houston Central Gas Plant (HCP), which is a natural gas processing, treatment, and fractionation facility that has a current capacity of 1.10 billion standard cubic feet per day (MMSCFD).

**TECHNICAL REVIEW: STANDARD PERMIT FOR
INSTALLATION AND/OR MODIFICATION OF OIL AND GAS FACILITIES**

Permit No.:	104949	Company Name:	Copano Processing, L.P.	APD Reviewer:	Mr. Guillermo Reyes, P.E.
Project No.:	178074	Site/Area Name:	Copano Processing Houston Central Gas Plt	SP No.:	6002 - (PRE 2011-FEB-27).

DESCRIBE PROJECT AND INVOLVED PROCESS

Copano is proposing to add an additional 400 MMSCFD cryogenic process, bringing the total plant capacity up to 1.5 billion standard cubic feet per day (BSCFD).

New project air emission sources consist of two supplemental gas-fired heaters (HTR-3 and HTR-4), a LL Treater controlled by a new Regenerative Thermal Oxidizer (RTO-3), an amine storage tank (TANK-3), two (2) Solar Mars 100 combustion turbines (TURB-5 and TURB-6) used for compression of the residue gas, fugitive piping components (CRY03 FUG), and flaring of flash gas from the vent from the flasher in the LL Treater process. **The flare (FLARE) has been previously authorized under TCEQ Standard Permit No. 101369.**

High pressure natural gas from the inlet pipeline will enter the plant, where it is first dehydrated through a molecular sieve dehydrator. After dehydration, the dry gas will then be processed through a cryogenic process removing the natural gas liquids (NGLs) from the gas. The NGLs are then sent through the site's existing fractionation columns. The residue gas from the cryogenic process will then be compressed and sent to sales. The compressors are driven by two new gas-fired combustion turbines. The liquids will be treated in a liquid amine treating unit (LL Treater), where CO2 and trace amounts of H2S will be removed from the NGLs. The acid gas (mostly CO2 along with minor concentrations of H2S and hydrocarbons) will then be routed to a new regenerative thermal oxidizer.

PSD –The Houston Central Gas Plant is a PSD major source, but increases of VOC (12.04 tpy), NO_x (38.35 tpy) CO (66.12), SO₂ (3.51) and PM (6.78) are less than the PSD significance level.

There are two other cryogenic plants at the site. APD staff asked why this project should not be revision to one of the existing permits at the site. Copano Processing L.P. represented that the new cryogenic is a separate process that will operate independent of the other two cryogenic plants and as such should be an independent permitting project requiring a new permit.

Copano represents that the heaters (EPNs HTR-3 and HTR-4) will only operate 600 hrs per year.

No MSS emissions are being registered under this project.

TECHNICAL SUMMARY - DESCRIBE HOW THE PROJECT MEETS THE RULES

**TECHNICAL REVIEW: STANDARD PERMIT FOR
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Project No.:	178074	Site/Area Name:	Copano Processing Houston Central Gas Plt	SP No.:	6002 - (PRE 2011-FEB-27).

§106.512. Stationary Engines and Turbines.

- (1) Turbines are rated at 15,000-hp, Form PI-1S, and Table 31s have been submitted.
- (2) NA, there are no engines being registered under this project.
- (3) NO_x emissions (0.125 g/hp-hr) will not exceed 3.0 g/hp-hr; turbines will meet all applicable NO_x and SO₂ emission limits, monitoring requirements, and reporting requirements of NSPS Subpart GG.
- (4) NA, there are no engines being registered under this project.
- (5) Gas fuel will be limited to sweet natural gas.
- (6) Compliance with hourly and annual NO₂ NAAQS has been demonstrated using Screen 3.

The following

Stack heights = 20 feet for turbines, 30 feet for supplemental heaters, 25 feet for RTO

EPN	Source Name	NO _x		NO ₂ /NO _x Ratio	NO ₂ lb/hr	"SCREEN Impact Max 1-hour Concentration (ug/m ⁶)
		lb/hr	tpy			
Existing Sources:						
BLR-3N	Boiler 3N	2.16	9.46	0.40	0.86	2.80
New Sources to be Authorized:						
TURB-5	Solar Turbine Mars 100	4.13	18.07	0.40	1.65	0.50
TURB-6	Solar Turbine Mars 100	4.13	18.07	0.40	1.66	0.50
I-ITR-3	Supplemental Gas Heater	2.45	0.74	0.80	1.96	17.97
HTR-4	Supplemental Gas Heater	2.45	0.74	0.80	1.96	17.97
RT0-3	Regenerative Thermal Oxidizer	0.317	0.733	0.80	0.25390	1.04
New Source Total:						37.98

Annual Screen Model Results for NO₂

New Source Max 1-hour Concentration (ug/m ³)	MuItiplying Factor	Annual Concentration (ug/m ³)	Background Concentration (ug/m ³)	Total Concentration (ug/m ³)	Annual NAAQS (ug/m ³)	Compliant with NAAQS?
40.78	0.08	3.26	20	23.26	100	Yes

1-Hour Screen Model Results for NO₂

New Source Max 1.-hour Concentration (ug/m ³)	Background Concentration (ug/m ³)	Total Concentration (ug/m ³)	1-Hour NAAQS Standard (ug/m ³)	Compliant with NAAQS?
37.98	70	107.98	188	Yes

D= >600 ft and K = 65



PBR 106.261 and 106.262 Emission Limits

Chemical	PBR Claimed	L, mg/m ³	Emission Limit (E = L/K), lb/hr	Emission Limit tpy	Actual Emissions lb/hr	Actual Emissions tpy
Propane	106.261(a)(2)	-	6.00	10.00	0.51	2.21
Butanes	106.261(a)(2)	-	6.00	10.00	0.39	1.70
Pentanes	106.262	350	6.00	5.00	0.35	1.54
C6+ (Hexanes+)	106.262	176	2.71	5.00	0.40	1.76
Total Emissions:					1.65	7.21

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Project No.:	178074	Site/Area Name:	Copano Processing Houston Central Gas Plt	SP No.:	6002 - (PRE 2011-FEB-27).

MAXIMUM ALLOWABLE EMISSION RATES TABLE (MAERT)															
EPN / Emission Source	Specific VOC or Other Pollutants	VOC		NOx		CO		PM₁₀		PM_{2.5}		SO₂		Formaldehyde	
		lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
TURB-5/Solar Mars 100 Turbine		0.80	3.50	4.13	18.07	6.98	30.57	0.76	3.31	0.76	3.31	0.39	1.71	0.08	0.36
TURB-6/Solar Mars 100 Turbine		0.80	3.50	4.13	18.07	6.98	30.57	0.76	3.31	0.76	3.31	0.39	1.71	0.08	0.36
HTR-3/Gas Heater		0.13	0.04	2.45	0.74	2.06	0.62	0.19	0.06	0.19	0.06	0.01	<0.01	<0.01	<0.01
HTR-4/Gas Heater		0.13	0.04	2.45	0.74	2.06	0.62	0.19	0.06	0.19	0.06	0.01	<0.01	<0.01	<0.01
RTO-3/RTO		0.53	2.28	0.32	0.73	1.27	3.74	0.02	0.04	0.02	0.04	0.02	0.09		
TANKS-3/Storage Tanks		0.01	0.01												
CRYO3 FUG/Process Fugitives		0.61	2.67												
TOTAL EMISSIONS (TPY):		3.01	12.04	13.48	38.35	19.35	66.12	1.91	6.78	1.91	6.78	0.83	3.51	0.17	0.71
MAXIMUM OPERATING SCHEDULE:		Hours/Day 24			Days/Week 7			Weeks/Year 52			Hours/Year 8760				

	TECHNICAL REVIEWER	PEER REVIEWER	FINAL REVIEWER
SIGNATURE:			See Hard Copy.
PRINTED NAME:	Mr. Guillermo E. Reyes, P.E.	Mr. Monico Banda	
DATE:		August 17, 2012	

BASIS OF PROJECT POINTS	POINTS
Base Points:	2.5
Project Complexity Description and Points:	1.0
Technical Reviewer Project Points Assessment:	3.5
Final Reviewer Project Points Confirmation:	

**TECHNICAL REVIEW: STANDARD PERMIT FOR
INSTALLATION AND/OR MODIFICATION OF OIL AND GAS FACILITIES**

Permit No.:	104949	Company Name:	COPANO PROCESSING LLC	APD Reviewer:	Mr. Isaac Vela
Project No.:	212536	Site/Area Name:	Copano Processing Houston Central Gas Plt	SP No.:	6002 - 116.620 PRE 2011-FEB-27

GENERAL INFORMATION			
Regulated Entity No.:	RN101271419	Project Type:	Standard Permit Application
Customer Reference No.:	CN604532515	Date Received by TCEQ:	June 18, 2014
Account No.:	CR-0020-C	Date Received by Reviewer:	June 25, 2014
City/County:	Sheridan, Colorado County	Physical Location:	1650 County Rd 255 South

CONTACT INFORMATION			
Responsible Official/Primary Contact Name and Title:	Mr. Michael Catt VP Ops	Phone No.: Fax No.:	(713) 420-2020 (713) 420-2010
		Email:	Michael_catt@kindermorgan.com
Technical Contact/Consultant Name and Title:	Mr. Michael Zeilstra Environmental Engineer	Phone No.: Fax No.:	713-420-4333
		Email:	Michael_zeilstra@kindermorgan.com

GENERAL RULES CHECK	YES	NO	COMMENTS
Is confidential information included in the application?		X	
Are there associated NSR or Title V permits at the site?	X		<i>The site operates under NSR permits 56613, 17117, 96187 and 17554/PSD-TX-709MI. Permit No. 56613 is affected. The site operates under standard permits No. 101369 and 96187. The site operates under PBR's 50221, 102105, 102542, 101750. The site operates under Title V permit No. O-00807 (SOP) and O-00871 (GOP)</i>
Is the application for renewal of an existing standard permit?		X	
Do NSPS, NESHAP, or MACT standards apply to this registration?	X		<i>Turbines NSPS KKKK Fugitives NSPS KKK</i>
Is the following documentation included with this registration? 1. The General Requirements Checklist demonstrating compliance with 30 TAC §§ 116.110 and 116.601-615 2. Process description 3. Project description 4. Descriptions of any equipment being installed 5. Emissions calculations including the basis of the calculations 6. Emission increases and/or decreases associated with this project (quantified) 7. Description of efforts to minimize any collateral emissions or collateral increases	X		<i>If NO, note any requests for additional information and date received:</i>
Are any requirements of 116.110 circumvented by: (1) artificially limiting feed or production rates below the maximum capacity of the project's equipment; (2) claiming a limited chemical list; or (3) dividing and registering a project in separate segments?		X	<i>If YES, are the limits intended to allow the project to move forward while waiting for a permit or permit amendment that will allow full-scale operations, particularly when the project would not be economically feasible until fully authorized?</i>

STANDARD PERMIT RULES CHECK:	YES	NO	COMMENTS
Does the facility meet the § 116.14(2) definition of an Oil & Gas facility?	X		
Are there any net increases in emissions associated with this registration?		X	<i>The emissions have decreased due to the installation of a new electric driven compressor control system.</i>
Does the facility vent or flare more than 0.3 long tons of sulfur (other than Sulfur Dioxide) per day?		X	
Are all emissions of sulfur compounds (other than SO2 and fugitives) controlled?		X	<i>If NO, list the emission rate (must be ≤4 lb/hr):</i>
Are all vents that emit sulfur compounds (other than SO2 and fugitives) to the atmosphere at least 20 feet above ground level (excluding emergency safety relief valves)?	X		<i>List vent heights: > 20 FT.</i>
Are there new or modified internal combustion reciprocating engines or gas turbines at the facility?		X	
Is there a natural gas glycol dehydration unit at the site that emits >10 tpy of VOCs?		X	<i>If YES, mark the type of control device used.</i> ___ flash tank ___ Vapor Recovery Unit ___ VOC destruction device ___ other

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Permit No.:	104949	Company Name:	COPANO PROCESSING LLC	APD Reviewer:	Mr. Isaac Vela
Project No.:	212536	Site/Area Name:	Copano Processing Houston Central Gas Plt	SP No.:	6002 - 116.620 PRE 2011-FEB-27

Are any combustion units with a design maximum heat input value > 40 MBtu/hr at the site (other than flares, internal combustion engines, or natural gas turbines)?		X	<i>If YES, list NO_x emissions in pounds per MBtu. (must be < 0.06 lb/MBtu):</i>															
Are VOC process fugitive emissions uncontrolled? <i>If YES, mark applicable inspection and repair requirements. [§ 116.620(c)(1) or § 116.620(c)(2)]</i>	X		<table border="1"> <tr> <td>VOCs (tpy)</td> <td>receptor < 500'</td> <td>receptor ≥500'</td> </tr> <tr> <td><input checked="" type="checkbox"/> <10</td> <td>no LDAR</td> <td>no LDAR</td> </tr> <tr> <td><input type="checkbox"/> 10≤25</td> <td>28M [(c)(1)]</td> <td>no LDAR</td> </tr> <tr> <td><input type="checkbox"/> 25≤40</td> <td>28VHP [(c)(2)]</td> <td>28M [(c)(1)]</td> </tr> <tr> <td><input type="checkbox"/> >40</td> <td>28VHP [(c)(2)]</td> <td>28VHP [(c)(2)]</td> </tr> </table>	VOCs (tpy)	receptor < 500'	receptor ≥500'	<input checked="" type="checkbox"/> <10	no LDAR	no LDAR	<input type="checkbox"/> 10≤25	28M [(c)(1)]	no LDAR	<input type="checkbox"/> 25≤40	28VHP [(c)(2)]	28M [(c)(1)]	<input type="checkbox"/> >40	28VHP [(c)(2)]	28VHP [(c)(2)]
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Are there flares at the facility?		X	<i>If YES, fill in the appropriate data. Minimum heating value of waste gas: Is gas necessary for adequate combustion? Maximum tip velocity: Method of pilot flame monitoring:</i>															
Is a flare the only combustion unit at the site?		No	<i>If NO, mark the fuel type for all combustion units.</i> <input checked="" type="checkbox"/> sweet natural gas <input type="checkbox"/> liquid petroleum gas <input type="checkbox"/> fuel gas ≤10 grains total sulfur/100 dscf <input type="checkbox"/> field gas ≤1.5 grains H ₂ S/100 dcfm or ≤30 grains total sulfur/100 dscf <input type="checkbox"/> field gas >1.5 grains H ₂ S/100 dcfm or >30 grains total sulfur/100 dscf (recordkeeping requirements of § 116.620(a)(18) applicable)															
Are all storage tanks onsite either (1) pressurized; (2) < 25,000 gallons in size; or (3) used for storage of compounds with vapor pressures < 0.5 psia?	X		<i>If NO, mark the applicable control.</i> <input type="checkbox"/> internal floating roof [§ 116.620(b)(1)(A) & (C)] <input type="checkbox"/> external floating roof [§ 116.620(b)(1)(B) & (C)] <input type="checkbox"/> VOC destruction device with 98% destruction efficiency <input type="checkbox"/> Vapor Recovery System with 95% recovery efficiency															
Are there any fixed roof storage tanks onsite that emit > 10 tpy VOCs or sulfur compounds?		X	<i>If YES, list the type of control device and its efficiency [§ 116.620(b)(1)(D)]:</i>															

DESCRIBE OVERALL PROCESS AT THE SITE

Copano owns and operates the Houston Central Gas Plant, which is a natural gas processing, treatment and fractionation facility. Copano is proposing to upgrade the HCP Cryogenic Plant No. 3 train control system design by replacing the RTO with a new electric compressor that will increase the amine unit vent acid gas stream pressure and route it to the sales gas pipeline.

4.1 Current Process Design

Copano's Cryogenic Plant No. 3 train begins with existing inlet compressors that compress a natural gas feed stream from the HCP inlet pipeline. The high pressure gas stream exiting the inlet compressors will be dehydrated as it passes through a molecular sieve dehydrator. Supplemental Heaters HTR-3 and HTR-4 will assist the molecular sieves in removing water from the hydrocarbon laden stream.

**TECHNICAL REVIEW: STANDARD PERMIT FOR
INSTALLATION AND/OR MODIFICATION OF OIL AND GAS FACILITIES**

Permit No.:	104949	Company Name:	COPANO PROCESSING LLC	APD Reviewer:	Mr. Isaac Vela
Project No.:	212536	Site/Area Name:	Copano Processing Houston Central Gas Plt	SP No.:	6002 - 116.620 PRE 2011-FEB-27

After the dehydration activities are complete, the dry gas will be routed to a cryogenic process that removes natural gas liquids (NGLs) as the gas stream passes through previously existing fractionation columns. The residue gas exiting the fractionation columns will be compressed and sent to the sales gas pipeline. Fractionation column liquids will be treated in a liquid amine treating unit, where CO₂ and trace amounts of H₂S will be removed from the NGLs. Some of the y-grade NGLs will be sent to the fractionation plant and separated into individual liquid products (ethane, propane, n-butane, isobutane, and natural gasoline (C5+)). The isobutene and n-butane products will be sent offsite via truck, while the remaining y-grade and fractionated products will be sent offsite via pipeline.

Copano initially planned to control the amine unit vent acid gas stream with a RTO. As previously noted, HCP has recently decided to install a new electric compressor to control the liquid amine unit acid gas stream in place of the RTO and eliminate unnecessary combustion emissions. A process flow diagram for the current process design is shown in Figure 4-1 and a description of the proposed control system design revisions is included in Section 4.2.

4.2 Proposed Process Revisions

In order to reduce liquid amine unit acid gas vent stream emissions, Copano has decided to upgrade the acid gas control system. Copano plans to install a new electric driven compressor to collect and compress the liquid amine unit acid gas vent stream and send it to the sales gas pipeline as a product, rather than combusting it in a RTO. This has the dual benefit of both increasing production and reducing air emissions at the site. Copano requests that TCEQ add the electric compressor control system to the Standard Permit No. 104949 authorization and remove the previously represented RTO, which will not be installed. A process flow diagram for the proposed process revisions are shown in Figure 4-2.

DESCRIBE PROJECT AND INVOLVED PROCESS

COPANO PROCESSING LLC has submitted a PI-1S to revise/certify the emissions from the Copano Processing Houston Central Gas Plt under the 116.620 standard permit rule. This project revision included the addition of a new electric driven compressor control system and the **removal of the Regenerative Thermal Oxidizer.**

TECHNICAL SUMMARY - DESCRIBE HOW THE PROJECT MEETS THE RULES

There are no net emission increases resulting from this revision. This project revision included the addition of a new electric driven compressor control system and the removal of the Regenerative Thermal Oxidizer resulting in a net decrease of emissions.

116.610 Applicability

This standard permit includes all facilities at this site and conditions (a)-(d) are met.

§116.611 Registration to Use a Standard Permit

All required documentation has been submitted. All of conditions (a)-(c) are met.

**TECHNICAL REVIEW: STANDARD PERMIT FOR
INSTALLATION AND/OR MODIFICATION OF OIL AND GAS FACILITIES**

Permit No.:	104949	Company Name:	COPANO PROCESSING LLC	APD Reviewer:	Mr. Isaac Vela
Project No.:	212536	Site/Area Name:	Copano Processing Houston Central Gas Plt	SP No.:	6002 - 116.620 PRE 2011-FEB-27

§116.614 Standard Permit Fees

The \$900 fee has been submitted.

§116.615 General Conditions

All of general conditions (1)-(10) will be met.

116.620 Installation and/or Modification of Oil and Gas Facilities



This site meets all conditions (a)-(d) of the oil and gas standard permit.

MAXIMUM ALLOWABLE EMISSION RATES TABLE (MAERT)

EPN / Emission Source	Specific VOC or Other Pollutants	VOC		NOx		CO		PM ₁₀		PM _{2.5}		SO ₂		Formaldehyde	
		lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
TURB-5/Solar Mars 100 Turbine		0.80	3.50	4.13	18.07	6.98	30.57	0.76	3.31	0.76	3.31	0.39	1.71	0.08	0.36
TURB-6/Solar Mars 100 Turbine		0.80	3.50	4.13	18.07	6.98	30.57	0.76	3.31	0.76	3.31	0.39	1.71	0.08	0.36
HTR-3/Gas Heater		0.13	0.04	2.45	0.74	2.06	0.62	0.19	0.06	0.19	0.06	0.01	<0.01	<0.01	<0.01
HTR-4/Gas Heater		0.13	0.04	2.45	0.74	2.06	0.62	0.19	0.06	0.19	0.06	0.01	<0.01	<0.01	<0.01
TANKS-3/Storage Tanks		0.01	0.01												
CRYO3 FUG/Process Fugitives		0.61	2.67												
TOTAL EMISSIONS (TPY):		2.49	9.77	13.15	37.61	18.07	62.38	1.89	6.74	1.89	6.74	0.81	3.42	0.17	0.71
MAXIMUM OPERATING SCHEDULE:	Hours/Day	24		Days/Week	7		Weeks/Year	52		Hours/Year	8760				

COMMUNICATION LOG

Date	Time	Name/Company	Subject of Communication
07/02/2014	9:00am	Mr. Michael Zeilstra Environmental Engineer	The company has been contacted with regards to the initial review yet no additional information has been requested.

	TECHNICAL REVIEWER	PEER REVIEWER	FINAL REVIEWER
SIGNATURE:			See Hard Copy.
PRINTED NAME:	Mr. Isaac Vela	Mr. Guillermo E. Reyes, P.E.	Ms. Anne M. Inman, P.E., Manager
DATE:	07/1/2014	07/02/2014	07/03/2014

BASIS OF PROJECT POINTS	POINTS
Base Points:	2.5
Project Complexity Description and Points: Project completed in less than 10 days	1.0
Technical Reviewer Project Points Assessment:	3.5
Final Reviewer Project Points Confirmation:	

Bryan W. Shaw, Ph.D., *Chairman*
Carlos Rubinstein, *Commissioner*
Toby Baker, *Commissioner*
Zak Covar, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

August 8, 2012

MS K S DE YOUNG
VICE PRESIDENT GOVERNMENT & REGULATORY AFFAIRS
COPANO PROCESSING LP
2727 ALLEN PKWY STE 1200
HOUSTON TX 77019-2153

Standard Permit Registration Number:	101369	Renewal Date:	April 13, 2022
Location:	1650 County Rd 255 South		
City/County:	Sheridan, Colorado County		
Project Description/Unit:	Correct Maer Table		
Regulated Entity Number:	RN101271419		
Customer Reference Number:	CN601465255		
New or Existing Site:	Existing		
Affected Permit (if applicable):	56613		
Standard Permit Type:	Pollution Control Project		

Copano Processing, L.P. has registered the emissions associated with the Correct Maer Table under the standard permit listed above as authorized by the Commissioners pursuant to Title 30 Texas Administrative Code § 116.602 (30 TAC § 116.602). Emissions are listed on the attached table. For rule information see:

www.tceq.texas.gov/permitting/air/nav/standard.html.

You are reminded that 30 TAC § 116.615 requires that any construction or change authorized by this standard permit should be consolidated into the affected facilities' permit(s) at the next amendment or renewal.

No planned MSS emissions have been represented or reviewed for this registration and none will be authorized.

The company is also reminded that these facilities may be subject to and must comply with other state and federal air quality requirements.

Ms. K S De Young

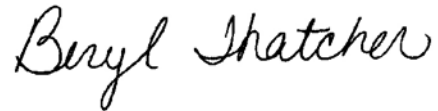
Page 2

August 8, 2012

Re: Standard Permit Registration Number 101369

If you have questions, please contact James E. Neeley, P.E. at (512) 239-2618. This action is taken under authority delegated by the Executive Director of the TCEQ.

Sincerely,

A handwritten signature in cursive script that reads "Beryl Thatcher".

Beryl Thatcher, Manager
Chemical New Source Review Permits Section
Air Permits Division
Texas Commission on Environmental Quality

cc: Air Section Manager, Region 12 - Houston

Project Number: 179455

Standard Permit Maximum Emission Rates Table
Permit Number 101369

The facilities and emissions included in this table have been represented and reviewed as the maximum emissions authorized by this standard permit registration.

ESTIMATED EMISSIONS									
EPN / Emission Source	Specific VOC or Other Pollutants	VOC		NO_x		CO		SO₂	
		lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
FLARE / Elevated Flare		1.84	7.96	0.61	2.67	1.22	5.34	0.0001	0.001
TOTAL EMISSIONS (TPY):			7.96		2.67		5.34		0.001
MAXIMUM OPERATING SCHEDULE:		Hours/Day	24	Days/Week	7	Weeks/Year	52	Hours/Year	8760

- VOC - volatile organic compounds
- NO_x - total oxides of nitrogen
- CO - carbon monoxide
- PM₁₀ - particulate matter equal to or less than 10 microns in size
- PM_{2.5} - particulate matter equal to or less than 2.5 microns in size
- SO₂ - sulfur dioxide

Bryan W. Shaw, Ph.D., *Chairman*
Carlos Rubinstein, *Commissioner*
Toby Baker, *Commissioner*
Zak Covar, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

August 20, 2012

MR REX J PROSSER
SR DIRECTOR EH&S CORPORATE
COPANO PROCESSING LP
1200 SMITH ST STE 2300
HOUSTON TX 77002-4507

Standard Permit Registration Number: 104949 Renewal Date: August 20, 2022
Location: 1650 County Rd 255 South
City/County: Sheridan, Colorado County
Project Description/Unit: Houston Central Gas Plant
Regulated Entity Number: RN101271419
Customer Reference Number: CN601465255
New or Existing Site: Existing
Affected Permit (if applicable): 56613
Standard Permit Type: Oil and Gas Production Facilities

Copano Processing, L.P. has registered the emissions associated with the Houston Central Gas Plant under the standard permit listed above as authorized by the Commissioners pursuant to Title 30 Texas Administrative Code § 116.602 (30 TAC § 116.602). Emissions are listed on the attached table. For rule information see

www.tceq.texas.gov/permitting/air/nav/standard.html.

No planned MSS emissions have been represented or reviewed for this registration and none will be authorized.

The company is also reminded that these facilities may be subject to and must comply with other state and federal air quality requirements. In addition, under the applicability section for all Standard Permits, § 116.610(a)(2) states that "Construction or operation of the project must be commenced prior to the effective date of a revision to this subchapter."

Mr. Rex J Prosser
August 20, 2012
Page 2

Re: Standard Permit Registration Number 104949

If you have questions, please contact Mr. Guillermo Reyes, P.E. at (512) 239-5716. This action is taken under authority delegated by the Executive Director of the TCEQ.

Sincerely,

A handwritten signature in black ink, appearing to read "Anne M. Inman". The signature is fluid and cursive, with a large initial "A" and a long horizontal stroke at the end.

Anne M. Inman, P.E., Manager
Rule Registrations Section
Air Permits Division
Texas Commission on Environmental Quality

cc: Air Section Manager, Region 12 - Houston

Project Number: 178074

Standard Permit Maximum Emission Rates Table
Permit Number 104949

The facilities and emissions included in this table have been represented and reviewed as the maximum emissions authorized by this standard permit registration.

MAXIMUM EMISSION RATES TABLE															
EPN / Emission Source	Specific VOC or Other Pollutants	VOC		NOx		CO		PM ₁₀		PM _{2.5}		SO ₂		Other	
		lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
TURB-5/Solar Mars 100 Turbine		0.80	3.50	4.13	18.07	6.98	30.57	0.76	3.31	0.76	3.31	0.39	1.71	0.08	0.36
TURB-6/Solar Mars 100 Turbine		0.80	3.50	4.13	18.07	6.98	30.57	0.76	3.31	0.76	3.31	0.39	1.71	0.08	0.36
HTR-3/Gas Heater		0.13	0.04	2.45	0.74	2.06	0.62	0.19	0.06	0.19	0.06	0.01	<0.01	<0.01	<0.01
HTR-4/Gas Heater		0.13	0.04	2.45	0.74	2.06	0.62	0.19	0.06	0.19	0.06	0.01	<0.01	<0.01	<0.01
RTO-3/RTO		0.53	2.28	0.32	0.73	1.27	3.74	0.02	0.04	0.02	0.04	0.02	0.09		
TANKS-3/Storage Tanks		0.01	0.01												
CRYO3 FUG/Process Fugitives		0.61	2.67												
TOTAL EMISSIONS (TPY):		3.01	12.04	13.48	38.35	19.35	66.12	1.91	6.78	1.91	6.78	0.83	3.51	0.17	0.71
MAXIMUM OPERATING SCHEDULE:		Hours/Day		Days/Week		Weeks/Year		Hours/Year		Hours/Year		Hours/Year		Hours/Year	
		24		7		52		8760		8760		8760		8760	

- VOC - volatile organic compounds
- NO_x - total oxides of nitrogen
- CO - carbon monoxide
- PM₁₀ - particulate matter equal to or less than 10 microns in size
- PM_{2.5} - particulate matter equal to or less than 2.5 microns in size
- SO₂ - sulfur dioxide

**Fugitive emissions are an estimate only and should not be considered as a maximum allowable

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Zak Covar, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

July 3, 2014

MR MICHAEL CATT
VP oPS
KINDER MORGAN INC
1001 LOUISIANA ST STE 1000
HOUSTON TX 77002-5089

Standard Permit Registration Number: 104949 Renewal Date: August 20, 2022
Location: 1650 County Rd 255 South
City/County: Sheridan, Colorado County
Project Description/Unit: 6002 Oil and Gas Facilities
Regulated Entity Number: RN101271419
Customer Reference Number: CN604532515
New or Existing Site: Existing
30 TAC § 116.620 Effective Date 09/04/2000

COPANO PROCESSING LLC has registered the emissions associated with the 6002 Oil And Gas Facilities under the standard permit listed above as authorized by the Commissioners pursuant to Title 30 Texas Administrative Code § 116.602 (30 TAC § 116.602). Emissions are listed on the attached table. For rule information see www.tceq.texas.gov/permitting/air/nav/standard.html.

The company is also reminded that these facilities may be subject to and must comply with other state and federal air quality requirements.

If you have questions, please contact Mr. Isaac Vela at (512) 239-4716. This action is taken under the authority delegated by the Executive Director of the TCEQ.

Sincerely,

A handwritten signature in black ink, appearing to read "Anne M. Inman".

Anne M. Inman, P.E., Manager
Rule Registrations Section
Air Permits Division

cc: Air Section Manager, Region 12 - Houston

Project Number: 212536

Standard Permit Maximum Emission Rates Table
Standard Permit Number: 104949

The facilities and emissions included in this table have been represented and reviewed as the maximum emissions authorized by this standard permit registration.

MAXIMUM ALLOWABLE EMISSION RATES TABLE (MAERT)																				
EPN / Emission Source	Specific VOC or Other Pollutants						VOC		NOx		CO		PM ₁₀		PM _{2.5}		SO ₂		Formaldehyde	
	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
TURB-5/Solar Mars 100 Turbine	0.80	3.50	4.13	18.07	6.98	30.57	0.76	3.31	0.76	3.31	0.39	1.71	0.08	0.36						
TURB-6/Solar Mars 100 Turbine	0.80	3.50	4.13	18.07	6.98	30.57	0.76	3.31	0.76	3.31	0.39	1.71	0.08	0.36						
HTR-3/Gas Heater	0.13	0.04	2.45	0.74	2.06	0.62	0.19	0.06	0.19	0.06	0.01	<0.01	<0.01	<0.01						
HTR-4/Gas Heater	0.13	0.04	2.45	0.74	2.06	0.62	0.19	0.06	0.19	0.06	0.01	<0.01	<0.01	<0.01						
TANKS-3/Storage Tanks	0.01	0.01																		
CRYO3 FUG/Process Fugitives	0.61	2.67																		
TOTAL EMISSIONS (TPY):	2.49	9.77	13.15	37.61	18.07	62.38	1.89	6.74	1.89	6.74	0.81	3.42	0.17	0.71						
MAXIMUM OPERATING SCHEDULE:				Hours/Day	24	Days/Week	7	Weeks/Year	52	Hours/Year	8760									

- VOC - volatile organic compounds
- NO_x - total oxides of nitrogen
- CO - carbon monoxide
- PM₁₀ - particulate matter equal to or less than 10 microns in size
- PM_{2.5} - particulate matter equal to or less than 2.5 microns in size
- SO₂ - sulfur dioxide

**Fugitive emissions are an estimate only and should not be considered as a maximum allowable