



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 08-0299867

THE APPLICATION OF COG OPERATING, LLC FOR AN EXCEPTION TO STATEWIDE RULE 32 FOR THE BRUNSON A 803 BATTERY AND LUDEMAN B 2502H BATTERY, PHANTOM (WOLFCAMP) FIELD, LOVING COUNTY, TEXAS

OIL AND GAS DOCKET NO. 08-0299868

THE APPLICATION OF COG OPERATING, LLC FOR AN EXTENSION TO THE EXCEPTION TO STATEWIDE RULE 32 FOR THE DUBYA STATE 12 BATTERY (#41620), GIPPER STATE WEST BATTERY (#43845), LION STATE BATTERY (#43578), TRUSTBUSTER BATTERY (#44096), WOLFBONE (TREND AREA) FIELD, REEVES COUNTY, TEXAS

OIL AND GAS DOCKET NO. 08-0299869

THE APPLICATION OF COG OPERATING, LLC FOR AN EXCEPTION TO STATEWIDE RULE 32 FOR THE ARMSTRONG 2824 (#278238), AUGUSTUS 1001 (#270906), CARPENTER E UNIT 205 (275861), CHUTEbuster 604 (#272209), GLENN 2021 (#278568), GLENN 2024 (#278893), GRISSOM A 3022 (#278440), MITCHELL 822 (#277893), PETOSKEY 2021H (#278889) BATTERIES, FORD, WEST (WOLFCAMP) FIELD, CULBERSON COUNTY, TEXAS

OIL AND GAS DOCKET NO. 08-0299870

THE APPLICATION OF COG OPERATING, LLC FOR AN EXCEPTION TO STATEWIDE RULE 32 FOR THE ALDRIN 2801 (#278649), ARMSTRONG 2803 (#278421), ARMSTRONG N 2802 (#276246), BACKSWING 2002 (#277804), CARPENTER A UNIT 201 (#277811), CARPENTER D UNIT 204 (#278362), DR STATE EAST 2003 (#277724), DR STATE EAST 3003 (#278364), DR STATE EAST 3403 (#278574), GRISSOM 1802 (278427), HORN SPLITTER 1003 (#278551), MITCHELL 801 (#278648), OWL HILLS 1402 (#278644), SHEPARD 813 (#804132), WETHERBEE 405 (#787781), BRUNSON 1002 (#44375), LUDEMAN I 1402 (#46851), BATTERIES, SANDBAR (BONE SPRING) FIELD, CULBERSON COUNTY, TEXAS

OIL AND GAS DOCKET NO. 08-0299871

THE APPLICATION OF COG OPERATING, LLC FOR AN EXTENSION TO THE EXCEPTION TO STATEWIDE RULE 32 FOR THE OLD HICKORY STATE BATTERY (#45421), PHANTOM (WOLFCAMP) FIELD, REEVES COUNTY, TEXAS

OIL AND GAS DOCKET NO. 08-0299872

THE APPLICATION OF COG OPERATING, LLC FOR AN EXTENSION TO THE EXCEPTION TO STATEWIDE RULE 32 FOR THE ROASTED GOAT 1006H (#46327) AND ROUGH RIDER 4506H (#46184) BATTERIES, HOEFS T-K (WOLFCAMP) FIELD, PECOS AND REEVES COUNTY, TEXAS

OIL AND GAS DOCKET NO. 08-0299873

THE APPLICATION OF COG OPERATING, LLC FOR AN EXTENSION TO THE EXCEPTION TO STATEWIDE RULE 32 FOR THE RAWHIDE STATE 403H (#4310040), TWO GEORGES (BONE SPRING) FIELD, REEVES COUNTY, TEXAS

OIL AND GAS DOCKET NO. 08-0299880

THE APPLICATION OF COG OPERATING, LLC FOR AN EXTENSION TO THE EXCEPTION TO STATEWIDE RULE 32 FOR THE RAWHIDE STATE 401H AND 402H, WOLFBONE (TREND AREA) FIELD, REEVES COUNTY, TEXAS

HEARD BY: Karl Caldwell – Technical Examiner
Jennifer Cook – Administrative Law Judge

HEARING DATE: April 18, 2016
CONFERENCE DATE: June 21, 2016

APPEARANCES:

APPLICANT:

Ana Maria Marsland Griffith
Terrell Pafford
Tami Parker
Tom McIlvain

REPRESENTING:

COG Operating, LLC

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

COG Operating, LLC ("COG") requests an exception to Statewide Rule 32 to flare casinghead gas from the various tank batteries listed in Appendix A. Notice was provided to all operators in the subject fields for all applications according to the most recent proration schedule and most current P-5 address for each operator at the time the applications were filed. The applications are unopposed, and the Technical Examiner and the Administrative Law Judge (collectively, "Examiners") recommend approval of an exception to Statewide 32 to flare gas for each of the subject tank batteries for a period of one year, as requested by COG.

DISCUSSION OF THE EVIDENCE

Statewide Rule 32 governs the utilization for legal purposes of natural gas produced under the jurisdiction of the Railroad Commission. Specifically, Statewide Rule 32(i) provides for renewal and amendment of exceptions. For the subject applications, COG has been previously granted either a 180-day administrative exception to Statewide Rule 32 to flare gas, or the paperwork for an exception to Statewide Rule 32 is pending. Statewide Rule 32(i) (4) states that if an operator files an application for renewal of an existing exception to the requirements of Statewide Rule 32 at least 21 days' before the expiration of the existing exception, and the existing authority expires before the Commission acts on the application, the operator is authorized to continue to operate under the existing authority pending final Commission action on the application. For each of the subject applications, the Commission received a request on March 2, 2016 for a hearing for an exception to Statewide Rule 32. At hearing the Examiners informed the Applicant that if any of the previous exceptions to Statewide Rule 32 had expired previously to the Commission receiving the request for hearing, that the proposed final orders would be backdated only to the date that the Commission received the request for the exceptions, and not to the expiration date of the previous exception. The Applicant's representative stated that this would not be considered to be an adverse recommendation. For each of the subject tank batteries COG is requesting a one-year extension/exception to flare gas at the maximum daily volumes listed in Appendix A.

These wells are horizontal wells completed in the Wolfcamp Formation, with the exception of a few wells completed in the Third Bone Springs interval. COG has increased the length of the well laterals from 1 mile to 1.5 and 2 mile long laterals. Some of these horizontal wells come on-line producing 1,500 to 1,800 barrels of oil (BO) per day and up to 3.5 MMcf of associated gas per day. The reservoirs are solution gas drive reservoirs and therefore it is not possible to produce these wells without the solution gas component. As the wells are produced and the pressure drops, the gas comes out of solution, so the oil cannot be produced without the gas. If COG were to

either shut-in wells or choke wells back, the toe portion of the horizontal wells may never produce as a result of water sitting on the productive formation for an extended period of time after well completion. According to COG's expert witness, the sooner you can get water off zone, the better the ultimate recovery of the well.

All of the tank batteries in each of the subject dockets are currently tied into pipelines; COG only flares gas when there is no available pipeline capacity. The need for flaring arises due to current area production exceeding the capabilities of gas gathering pipelines, field compression, and/or gas plant capacity in each of these fields at this time. COG has been able to reduce flaring over the past several years. For example, in the North Harpoon area (Oil and Gas Dockets Nos. 08-0299873 & 08-0299880) in January 2014, COG was producing approximately 9 MMcf per day, and selling approximately 4 MMcf of this gas volume. More than 50% of the gas was flared in that area two years ago. As of March 2016, COG has reduced the volume of gas flared to approximately 4% of the total volume of gas produced. Even though the produced volumes and sales volumes have drastically increased, the amount of gas flared has drastically decreased. Back in January 2014, COG was selling approximately 4 MMcf per day. In March 2016, COG sold a daily average of 21 MMcf of gas per day.

Energy Transfer has made improvements to its gas gathering system in the past year, and has plans to continue to make improvements. For example, the Rawhide State Battery was the subject of Oil and Gas Docket No. 08-0295886 in which a Final Order granted an exception to Statewide Rule 32. The Rawhide State 401H and 402H tank batteries, with wells producing from the Wolfbone (Trend Area) Field, and the Rawhide State 403H tank battery, with wells producing from the Two Georges (Bone Spring) Field are located in Reeves County, Texas. Gas produced from the Rawhide State is contracted to Energy Transfer. Since the last hearing, (Oil and Gas Docket No. 08-0295886), the Bonanza compressor station has been added as a new booster compression station (facility) which was brought on-line at 20 MMcf per day. The Birds of Prey booster/compression facility is also a new addition to Energy Transfer's gathering system in the area, adding an additional 20 MMcf per day. In total, the upgrades made to Equipment Transfer's gathering system in this area have added 70 MMcf of booster/compression to the system. These additions have helped to reduce pipeline pressure in the area of the affected leases and Energy Transfer's gas plants.

PennTex Permian ("PennTex") also operates a gathering system in this area. Many of the tank batteries in the subject dockets have dual-metering points. Although much of the gas produced from COG's wells in the area is contracted to Energy Transfer, the pipeline pressure occasionally gets above the contracted line pressure. When this occurs, COG can sell (offload) gas to PennTex. COG sells this gas to PennTex when they cannot sell to Energy Transfer to minimize flaring.

PennTex has also upgraded its gathering system in the area over the past year. The Tycoon – Poppy Compressor Station was added at 20 MMcf per day capacity. In addition, a loop-line that goes to the Colley compressor station in the area allows COG

to have suction and discharge in two different directions, depending on where the compressors are and where the new wells are coming on-line. By the third quarter of 2016 PennTex has plans to add a 60 MMcf per day processing unit to their existing facility in the area that will further improve gas handling in this area of the field.

There are two other gathering systems that are currently being built in the area, Brazos Midstream and Vaquero Gathering has built into that area. COG has plans to sell gas to Brazos Midstream in the future to help with take-away capacity in the future. Brazos currently has a 60 MMcf plant under construction. This plant is estimated to be on-line in the third quarter of 2016, which will greatly help with gas take away from this area.

COG does not current sell any gas to Vaquero Gathering. This company is building a plant that is currently under construction which will help reduce pressure from both the Energy Transfer and PennTex systems by providing another pipeline option for gas in this area.

FINDINGS OF FACT

1. Proper notice of this hearing was given to offset operators in the subject fields at least ten days' prior to the date of hearing. There were no protests to the applications.
2. All of the tank batteries are connected to gas pipelines in each of the subject dockets.
3. COG only flares gas when there is no available pipeline capacity.
4. The Commission received a hearing request from COG on March 2, 2016 for an exception to Statewide Rule 32 for each of the tank batteries listed in Appendix A.
5. COG is requesting a one-year exception to Statewide Rule 32 for each of the tank batteries in each of the subject dockets.
6. Many of COG's tank batteries have dual meters that allow gas to be sold to PennTex if Energy Transfer's pipeline pressures are too high.
7. Both Energy Transfer and PennTex have made system improvements in the area and have plans for future improvements which will add pipeline capacity.
8. The reservoirs are solution gas drive reservoirs and it is not possible to produce these wells without the solution gas component.

9. COG has increased the length of the well laterals from 1 mile to 1.5 and 2 mile long laterals.
10. Some of COG's horizontal wells come on-line producing 1,500 to 1,800 barrels of oil (BO) per day and up to 3.5 MMcf of gas per day.

CONCLUSIONS OF LAW

1. Proper notice was issued as required by all applicable statutes and regulatory codes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
3. Title 16, Texas Administrative Code 3.32(i) provides for the renewal and amendment of exceptions.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the Examiners recommend that the Commission grant the request by COG Operating, LLC for an exception to Statewide Rule 32 for the tank batteries listed in Appendix A. The exception is granted for the maximum volumes listed for each tank battery as shown in Appendix A for a period of one year from the date the hearing request was received for all tank batteries with the exception of the Roasted Goat 1006H tank battery, which is granted a one year exception from the date the current flare permit expires for a period of one year (March 28, 2016 through March 27, 2017).

Respectfully submitted,



Karl Caldwell
Technical Examiner



Jennifer Cook
Administrative Law Judge

APPENDIX A

08-0299867

Tank Battery	Lease ID or Drilling Permit No.	Previous O&G Docket No.	Previous Permit No.	Maximum Flare Volume (Mcf per day)	Start Date	End Date
Brunson A 803	46821	N/A	24403	500	3/2/2016	3/1/2017
Ludeman B No. 2502H	46496	N/A	22110	550	3/2/2016	3/1/2017

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Tank Battery	Lease ID or Drilling Permit No.	Previous O&G Docket No.	Previous Permit No.	Maximum Flare Volume (Mcf per day)	Start Date	End Date
Aldrin 2801	278649	N/A	23021	350	3/2/2016	3/1/2017
Armstrong 2803	278421	N/A	21681	650	3/2/2016	3/1/2017
Armstrong N 2802	276246	N/A	21682	500	3/2/2016	3/1/2017
Backswing 2002	277804	N/A	24498	500	3/2/2016	3/1/2017
Carpenter A Unit 201	277811	N/A	20492	300	3/2/2016	3/1/2017
Carpenter D Unit 204	278362	N/A	20494	300	3/2/2016	3/1/2017
DR State East 2003	277724	N/A	24396	350	3/2/2016	3/1/2017
DR State East 3003	278364	N/A	24397	650	3/2/2016	3/1/2017
DR State East 3403	278574	N/A	24395	1,000	3/2/2016	3/1/2017
Grissom 1802	278427	N/A	21313	900	3/2/2016	3/1/2017
Horn Splitter 1003	278551	N/A	Pending	3,800	3/2/2016	3/1/2017
Mitchell 801	278648	N/A	21680	350	3/2/2016	3/1/2017
Owl Hills 1402	278644	N/A	21677	250	3/2/2016	3/1/2017
Shepard 813	804132	N/A	Pending	1,000	3/2/2016	3/1/2017
Wetherbee 405	787781	N/A	22743	1,300	3/2/2016	3/1/2017
Brunson 1002	44375	N/A	20969	500	3/2/2016	3/1/2017
Ludeman I 1402	46851	N/A	24400	500	3/2/2016	3/1/2017

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Tank Battery	Lease ID or Drilling Permit No.	Previous O&G Docket No.	Previous Permit No.	Maximum Flare Volume (Mcf per day)	Start Date	End Date
Old Hickory State Battery	45421	08-0295883	18722	450	3/2/2016	3/1/2017

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Tank Battery	Lease ID or Drilling Permit No.	Previous O&G Docket No.	Previous Permit No.	Maximum Flare Volume (Mcf per day)	Start Date	End Date
Dubya State 12	41620	08-0295884	16097	136	3/2/2016	3/1/2017
Gipper State West	43845	08-0295884	16095	169	3/2/2016	3/1/2017
Lion State	43578	08-0295884	18599	500	3/2/2016	3/1/2017
Trustbuster	44096	08-0295884	17948	500	3/2/2016	3/1/2017

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Tank Battery	Lease ID or Drilling Permit No.	Previous O&G Docket No.	Previous Permit No.	Maximum Flare Volume (Mcf per day)	Start Date	End Date
Armstrong 2824	278238	N/A	23020	2,000	3/2/2016	3/1/2017
Augustus 1001	270906	N/A	20225	250	3/2/2016	3/1/2017
Carpenter E Unit 205	275861	N/A	20493	250	3/2/2016	3/1/2017
Chutebuster 604	272209	N/A	18853	350	3/2/2016	3/1/2017
Glenn 2021	278268	N/A	22409	1,200	3/2/2016	3/1/2017
Glenn 2024	278893	N/A	Pending	2,500	3/2/2016	3/1/2017
Grissom A 3022	278440	N/A	24401	3,800	3/2/2016	3/1/2017
Mitchell 822	277893	N/A	20493	1,200	3/2/2016	3/1/2017
Petoskey 2021H	278889	N/A	Pending	1,500	3/2/2016	3/1/2017

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Tank Battery	Lease ID or Drilling Permit No.	Previous O&G Docket No.	Previous Permit No.	Maximum Flare Volume (Mcf per day)	Start Date	End Date
Rawhide State 403H	43100	08-0295886	18602	450	3/2/2016	3/1/2017

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Tank Battery	Lease ID or Drilling Permit No.	Previous O&G Docket No.	Previous Permit No.	Maximum Flare Volume (Mcf per day)	Start Date	End Date
Rawhide State 401H	43100	08-0295886	18602	450	3/2/2016	3/1/2017
Rawhide State 402H	43100	08-0295886	18602	450	3/2/2016	3/1/2017

08-0299872

Tank Battery	Lease ID or Drilling Permit No.	Previous O&G Docket No.	Previous Permit No.	Maximum Flare Volume (Mcf per day)	Start Date	End Date
Roasted Goat 1006H	46327	08-0296174	19342	900	3/28/2016	3/27/2017
Rough Rider 4506H	46184	08-0296174	19339	467	3/2/2016	3/1/2017