RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 02-0295928

THE APPLICATION OF ENCANA OIL & GAS (USA) INC. FOR AN EXCEPTION TO 16 TAC §3.32 FOR THE STIEREN COATES FACILITY, EAGLEVILLE (EAGLE FORD-2) FIELD, KARNES COUNTY, TEXAS

OIL AND GAS DOCKET NO. 02-0295929

THE APPLICATION OF ENCANA OIL & GAS (USA) INC. FOR AN EXCEPTION TO 16 TAC §3.32 FOR THE BURDA GOLDEN FACILITY, EAGLEVILLE (EAGLE FORD-2) FIELD, KARNES COUNTY, TEXAS

OIL AND GAS DOCKET NO. 02-0295930

THE APPLICATION OF ENCANA OIL & GAS (USA) INC. FOR AN EXCEPTION TO 16 TAC §3.32 FOR THE BETTY FACILITY, EAGLEVILLE (EAGLE FORD-2) FIELD, KARNES COUNTY, TEXAS

HEARD BY: Brian Fancher, P.G. – Technical Examiner
Laura Miles-Valdez – Legal Examiner

HEARING DATE: April 17, 2015
RECORD CLOSED: April 17, 2015
SUBMISSION DATE: August 12, 2015
CONFERENCE DATE: August 25, 2015

APPEARANCES: **REPRESENTING:**

APPLICANT:

D. Davin McGinnis
James. M. Clark, P.E. — Encana Oil & Gas (USA), Inc.

OBSERVER:

Bob Tierney — Freeport-McMoran Oil & Gas

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

The captioned dockets were heard on a joint record at the April 17th hearing. The applications are unprotested and the Examiners recommend that they be approved, as requested by Encana.

Pursuant to 16 Tex. Admin. Code §3.32, Encana Oil & Gas (USA), Inc. seeks authority to continue flaring casing-head gas from each of the subject leases as follows:

1. Stieren Coates Facility: 2,400 MCF per month (80 MCF per day) from 03/29/2015 to 03/31/2016;
2. Burda Golden Facility: 105 MMCF per month (3,500 MCF per day) from 4/3/2015 to 12/31/2015;
3. Betty Facility: 2,000 MCFG per month (67 MCF per day) from 03/29/2015 to 03/21/2016.

DISCUSSION OF THE EVIDENCE

Mr. James M. Clark testified as an expert in petroleum engineering on behalf of Encana. Mr. Clark is a consulting Petroleum Engineer.

Applicable Rules

In general, 16 Tex. Admin. Code §3.32 ("SWR 32") governs the utilization for legal purposes of natural gas produced under the jurisdiction of the Railroad Commission. Titled "Exceptions," SWR 32(h) states:

> Requests for exceptions for more than 180-days and for volumes greater than 50 mcf of hydrocarbon gas per day shall be granted only in a final order signed by the commission.

Stieren Coates Facility

Encana seeks authority to flare up to 2,400 MCFG per month (80 MCFG per day) from the Stieren Coates Facility from March 29, 2015 through March 31, 2016. The Stieren Coates Facility is comprised of one well, the Stieren Coates Unit A, Well No. 1H (API No. 42-255-33339) ("Stieren 1H").

Encana received two administrative approvals from the Oil and Gas Division to flare casinghead gas for 180-days on the Stieren Coates Facility as follows (Flare Permit No. 18801):

	Volume (MCFGD)	Effective Date	Expiration Date
1.	80	10/1/2014	12/29/2014 (90 days)
2.	80	12/30/2014	3/28/2015 (90 days)

By letter dated March 3, 2015, Encana timely submitted its hearing request for the Stieren Coates Facility.

Encana submitted a copy of the completion report filed for the Stieren 1H. Mr. Clark testified that the Stieren 1H was completed in the subject field on November 17, 2013, and tested for initial potential ("IP") on January 6, 2014. The Stieren 1H's IP test resulted in 183 barrels of oil per day, 0 MCFG per day, and 275 barrels of water per day. Mr. Clark testified that the Stieren 1H eventually began producing casinghead gas once the well's hydrofrac flow back period ended. He testified that the Stieren 1H's monthly production ranged from 2,106 barrels of oil and 1,742 MCFG to 1,324 barrels of oil and 1,063 MCFG between August 2014 and February 2015.

Mr. Clark testified that the nearest gas market pipeline is located 3.8 miles east of the Stieren 1H. Encana submitted an economic forecast of the financial expenses it anticipates if it is not granted the relief sought for the Stieren Coates Facility. Mr. Clark testified that it would cost roughly $926,000 to build a transport gas pipeline from the Stieren 1H to the nearest market gas pipeline located 3.8 miles away. He further testified that the Stieren 1H produces sour gas ("H_2S"), and that it would cost roughly $1,400 per day to sweeten the H_2S-gas for market pipeline acceptance. In conclusion, Mr. Clark testified that Encana would incur a capital loss of $1,046,095 if it were to build the mentioned 3.8 mile long gas pipeline. Therefore, Encana argues that it is not economic to market the casinghead gas from the Stieren Coates Facility.

Encana requests that it be granted flexibility in flaring casinghead gas from the Stieren Coates Facility by allowing it a monthly volume limitation as opposed to a daily volume limitation. That is, Encana seeks to flare 2,400 MCFG per month from the Stieren Coates Facility, which is the equivalent of 80 MCFG per day in one 30-month period. Encana argues that a monthly volume limitation will provide it greater ability to adhere to the Commission's flaring rules because the Stieren 1H's daily production varies from day to day. In other words, the Stieren 1H does not consistently produce 80 MCFG of casinghead gas per day because the well's daily production volumes naturally fluctuate.

Burda Golden Facility

Encana seeks authority to flare up to 105 MMCFG per month (3,500 MCFG per day) from the Burda Golden Facility from April 3, 2015 through December 31, 2015.

Encana received six administrative approvals from the Oil and Gas Division to flare casing-head gas for 180-days on the Burda Golden Facility as follows (Flare Permit No. 18804):

	Volume (MCFGD)	Effective Date	Expiration Date
1.	2,000	10/01/2014	12/09/2014 (69 days)
2.	5,000	12/10/2014	12/29/2014 (19 days)
3.	2,000	12/30/2014	02/12/2015 (44 days)
4.	5,000	02/13/2015	02/16/2015 (3 days)
5.	2,000	02/17/2015	02/28/2015 (11 days)
6.	3,500	03/01/2015	04/04/2015 (34 days)

By letter dated March 3, 2015, Encana timely submitted its hearing request for the Burda Golden Facility

Mr. Clark testified that the maximum flare volumes it was administratively granted fluctuated as a result of isolated equipment mishaps on the Burda Golden Facility. For example, he testified that Encana requested to flare increased volumes of 5,000 MCFGD in December 2014 and February 2015 due to a compressor fire and a gas dehydration unit's malfunction, respectively.

The Burda Golden Facility serves as a central production facility for seven regulatory leases: (1) Burda Collins Unit (Lease ID 10105); (2) Golden 'A' Unit (10172); (3) Golden B Unit (10318); (4) Korth A Unit (10612); (5) Korth B Unit (10445); (6) Korth C Unit (10206); and (7) Rudd Unit (10070) (collectively "BGF Leases").[1] Each of the BGF Leases contains around 12 production wells on average (total of roughly 73 wells). All production from the BGF Leases is routed to the Burda Golden Facility. All production from the BGF Leases contain H_2S. On average, the Burda Golden Facility handles roughly 3,500 MCF of casinghead gas from the production wells located on the BGF Leases. Mr. Clark testified that the BGF Leases' production wells produce about 80 MCF of casinghead gas per day, individually. Mr. Clark testified that the Burda Golden Facility is located on the Golden B Unit (10318).[2]

Mr. Clark testified that between August 2014 and February 2015, the Burda Golden Facility handled around 420,000 barrels of oil per month and around 500 MMCF of casinghead gas. He testified that the majority of the produced casinghead gas is being sold to market and/or being used for lease operations.[3] Mr. Clarke testified that the production wells on the BGF Leases are produced by gas lift.

However, Mr. Clark testified that a small portion of the daily casinghead gas is flared. Encana submitted a bar chart to demonstrate the monthly volume of oil produced in MCFE (*i.e.*, gas equivalent) versus the volume of monthly gas flared at the Burda Golden Facility.[4] Mr. Clark testified that the oil produced at the Burda Golden Facility in one month averages roughly 2.5 billion cubic feet of MCFE. He testified that the monthly volume of gas flared each month at the Burda Golden Facility is roughly between 18.7 million and 64.5 million cubic feet of gas.

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[1] Encana Exh. Nos. 2 and 3 for O&G Docket 02-0295929 with testimony at 18:45.
[2] Encana Exh. Nos. 4 and 5 for O&G 020295929 with testimony at 19:40.
[3] Testimony at 23:00.
[4] Encana Exh. No. 8. MCFE is an equivalent MCF where the oil volume is multiplied by a factor of six. The product is the rough energy equivalent of hydrocarbon gas measured in one thousand cubic feet.

Encana also submitted a table to show the monthly volume of casinghead gas production handled versus the monthly volume of casinghead gas flared at the Burda Golden Facility.[1] Encana flared roughly 3% of the monthly casinghead gas production during August 2014, and that Encana flared roughly 12% of the monthly casinghead gas production during February 2015.

The Burda Golden Facility is composed of a flare stack, liquid and gas plumbing, numerous surface tanks and vessels, and seven gas compressors. Encana is in the process of adding an additional compressor at the Burda Golden Facility, thus the basis for its request to flare casinghead gas in the immediate case. Mr. Clark testified that once the eighth compressor is operational, Encana will no longer need authority to flare casinghead gas during routine operations because all casinghead gas will be sold to market.

Encana argues that its requested relief for the Burda Golden Facility is necessary because without the ability to flare casinghead gas at its requested rate of 3,500 MCFG per day until December 31, 2015, it will recover less oil.

Encana requests that it be granted flexibility in flaring casinghead gas from the Burda Golden Facility by allowing it a monthly volume limitation as opposed to a daily volume limitation. That is, Encana seeks to flare 105 MMCFG per month from the Betty Facility, which is the equivalent of about 3,500 MCFG per day in one 30-month period. Encana argues that a monthly volume limitation will provide it greater ability to adhere to the Commission's flaring rules because the Burda Golden Facility's daily production varies from day to day.

<u>Betty Facility</u>

Encana seeks authority to flare up to 2,000 MCFG per month (67 MCFG per day) from the Betty Facility from March 29, 2015 through March 31, 2016. The Betty Facility is comprised of one well, the Betty Lease, Well No. 1H (API No. 42-255-33352) ("Betty 1H").

Encana received two administrative approvals from the Oil and Gas Division to flare casing-head gas for 180-days on the Betty Facility as follows (Flare Permit No. 18803):

	Volume (MCFGD)	Effective Date	Expiration Date
1.	75	10/1/2014	12/29/2014 (90 days)
2.	75	12/30/2014	3/28/2015 (90 days)

By letter dated March 3, 2015, Encana timely submitted its hearing request for the Stieren Coates Facility.

Encana submitted a copy of the completion report filed for the Betty 1H. The Betty 1H was completed in the subject field on February 6, 2014, and tested for initial potential ("IP") on March 11, 2014. The Betty 1H's IP test resulted in 251 barrels of oil per day, 591 MCFG per day, and 125 barrels of water per day. Mr. Clark testified that the Betty 1H's monthly

[1] Encana Exh. No. 9.

production ranged from 3,146 barrels of oil and 807 MCFG to 1,258 barrels of oil and 1,130 MCFG between August 2014 and March 2015, respectively.

Mr. Clark testified that the nearest gas market pipeline is located 5.7 miles east of the Betty 1H. Encana submitted an economic forecast of the financial expenses it anticipates if it is not granted its relief sought for the Betty Facility. He further testified that the Betty 1H produces H_2S-gas, and that it would cost roughly $420 per day to sweeten the H_2S-gas for market pipeline acceptance. In conclusion, Mr. Clark testified that Encana would incur a capital loss of $1,496,555 if it were to build the mentioned 5.7 mile long gas pipeline. Therefore, Encana argues that it is not economic to market the casinghead gas from the Betty Facility.

Encana requests that it be granted flexibility in flaring casinghead gas from the Betty Facility by allowing it a monthly volume limitation as opposed to a daily volume limitation. That is, Encana seeks to flare 2,000 MCFG per month from the Betty Facility, which is the equivalent of about 67 MCFG per day in one 30-month period. Encana argues that a monthly volume limitation will provide it greater ability to adhere to the Commission's flaring rules because the Betty 1H's daily production varies from day to day.

FINDINGS OF FACT

1. Encana Oil & Gas (USA), Inc. ("Encana") seeks exception to 16 Texas Admin. Code §3.32 to flare casing-head gas derived from the Eagleville (Eagle Ford-2) Field at the Stieren Coates Facility, Burda Golden Facility, and Betty Facility ("Subject Leases") in the following manner ("Subject Applications"):

    a. Stieren Coates Facility: 2,400 MCF per month (80 MCF per day) from 03/29/2015 to 03/31/2016;

    b. Burda Golden Facility: 105 MMCF per month (3,500 MCF per day) from 4/3/2015 to 12/31/2015;

    c. Betty Facility: 2,000 MCFG per month (67 MCF per day) from 03/29/2015 to 03/21/2016.

2. Notice of Hearing was provided to all immediate offsetting operators adjacent to the Subject Leases in Oil & Gas Docket Nos. 02-0295928, 02-0295929 and 02-0295930, heard on April 17, 2015.

3. Encana received administrative authority to flare casing-head gas volumes beyond 50 MCFGD on the Subject Leases prior to the hearing held on April 17, 2015 (MCFGD represents 1,000 cubic feet of gas per day):

4. Encana's administrative authority to flare from each of the Subject Leases expired on the following days:

    a. Stieren Coates Facility: 3/28/15

b. Burda Golden Facility: 4/2/15
c. Betty Unit: 3/28/15

5. Encana submitted hearing requests to the Commission for the Subject Applications on March 3, 2015.

6. Encana has shown necessity for flaring beyond 180 days at volumes above 50 MCFG per day in the Subject Applications.

7. Approval of the Subject Applications is reasonable and appropriate, pursuant to 16 Tex. Admin. Code §3.32

CONCLUSIONS OF LAW

1. Resolution of the Subject Applications is a matter committed to the jurisdiction of the Railroad Commission of Texas – Tex. Nat. Res. Code §81.051.

2. Legally sufficient notice has been provided to all affected persons.

3. The requested rates and time frames to flare casing-head gas, as described in Finding of Fact No. 1, satisfies the requirements of Title 16 TAC §§3.32.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the Examiners recommend that the Commission grant exceptions to flare up casing-head gas from the Subject Leases as described in Finding of Fact No. 1 above.

Respectfully submitted,

Brian Fancher, P.G.
Technical Examiner

Laura Miles-Valdez
Legal Examiner