

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter, on the Commission's own motion,)	
to consider the appropriate regulatory response to)	
proposals by various producers of natural gas from)	Case No. U-16230
Antrim Shale Formation to operate their wells)	
under a vacuum.)	
_____)	

At the May 23, 2019 meeting of the Michigan Public Service Commission in Lansing,
Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman
Hon. Norman J. Saari, Commissioner
Hon. Daniel C. Scripps, Commissioner

ORDER

Riverside Energy Michigan, LLC's Motion

On April 3, 2019, Riverside Energy Michigan, LLC (Riverside Energy) filed a motion to amend the October 27, 2015 order in Case No. U-16230 (October 27 order).¹ The October 27 order approved requirements related to the operation of gas wells under vacuum in the Antrim Shale Field (ASF). Riverside Energy moves that operators will be permitted to: (1) monitor and record vacuum pressures monthly rather than weekly (Operational Requirement B); (2) file with the Commission notices of planned installation of compressors, pumps, or other devices being added for the purpose of applying a vacuum rather than planned installation for any purpose

¹ An erratum to Attachment 1 of the October 27 order was issued on October 29, 2015 (October 29 erratum).

(Notification Requirement B);² (3) report an economic analysis of fuel consumption versus the estimated incremental production in the first 12 months of operations rather than annually (Annual Reporting Requirements A); and (4) submit one report for multiple facilities rather than individual reports for each ASF field or project (Annual Reporting Requirements C).

Procedural History

On April 27, 2010, the Commission opened this docket, on its own motion, to determine the appropriate regulatory response to applications filed pursuant to Mich Admin Code, R 460.867 (Rule 17)³ for operation of gas wells under vacuum in the ASF (April 27 order).⁴ The April 27 order stayed further proceedings on pending applications, closed the docket in Case No. U-16190, and determined that all parties to the four related cases, including the Commission Staff (Staff) were parties to Case No. U-16230. April 27 order, pp. 5, 7-8. On January 13, 2015, the Commission issued an order in this docket finding that the Commission has jurisdiction over applications to operate gas wells under vacuum in the ASF (January 13 order). January 13 order, p. 12. On May 14, 2015, the Commission issued an order in this docket stating that all then-pending applications, pursuant to Rule 17, to operate gas wells under vacuum in the ASF were approved, subject to the conditions set forth in the order (May 14 order). All current and future

² The proposed amendment does not affect the requirement to report such installations upon occurrence of pipeline failures related to vacuum operations in the ASF.

³ See, the April 27 order, p. 4. Rule 17 provides that “[n]o gas well, pool or field shall be placed under vacuum by the use of compressors, pumps or other devices except with the approval of the commission.”

⁴ See, the April 27 order, pp. 2-4. On August 24, 2009, applications to operate gas wells under vacuum were filed in Case Nos. U-16074 (Highmount Midwest Energy, LLC), U-16075 (Belden & Blake Corporation d/b/a Ward Lake Energy), and U-16076 (Terra Energy Company LLC) (collectively, the pending applications). Numerous companies filed petitions for leave to intervene. On January 13, 2010, Muskegon Development Company sought a declaratory ruling to prevent all companies from operating gas wells under vacuum in the ASF.

wells produced from the ASF were also approved to operate under vacuum, again subject to the conditions set forth in the order. May 14 order, p. 34. As discussed above, the October 27 order set forth the requirements to operate a natural gas well, pool, or field under vacuum in the ASF. *See*, October 27 order, Attachment 1, and October 29 erratum.

On March 21, 2017, the Michigan Court of Appeals issued an opinion affirming the Commission's decision to permit "all operators who were drilling in the [Antrim Shale] [F]ormation to operate their wells under vacuum." *In re Antrim Shale Formation re Operation of Wells Under Vacuum*, 319 Mich App 175, 177; 899 NW2d 799 (2017).

In response to the instant motion filed by Riverside Energy, the Commission issued a public notice on April 19, 2019, inviting responses to the motion to be filed no later than 5:00 p.m. on May 10, 2019. On April 29, 2019, the Michigan Oil and Gas Association, on behalf of its membership, filed a letter in support of Riverside Energy's motion. No other parties responded.

Discussion

The Commission finds that the proposed amendments to the October 27 order requirements for operating gas wells under vacuum in the ASF should be approved. Sufficient time has passed since the initial requirements were ordered to provide the gas-producing community and the Commission with an abundance of data related to vacuum operations in the ASF. The proposed amendments will not affect the safety of operations in the ASF; will provide the gas-producers operating therein with less burdensome regulatory requirements; and will enhance the quality and relevance of information gathered. No party filed objections to the motion. Accordingly, the Commission finds that the proposed amendments are reasonable and prudent. Riverside Energy's motion is granted.

THEREFORE, IT IS ORDERED that the Requirements for an Antrim Natural Gas Well, Pool, or Field to Operate Under a Vacuum, as set forth in the October 27, 2015 order in Case No. U-16230 and the erratum issued on October 29, 2015, are amended as set forth in Exhibit A to this order, effective the date of this order.

The Commission reserves jurisdiction and may issue further orders as necessary.

Any party desiring to appeal this order must do so in the appropriate court within 30 days after issuance and notice of this order, pursuant to MCL 462.26. To comply with the Michigan Rules of Court's requirement to notify the Commission of an appeal, appellants shall send required notices to both the Commission's Executive Secretary and to the Commission's Legal Counsel.

Electronic notifications should be sent to the Executive Secretary at mpscedockets@michigan.gov and to the Michigan Department of the Attorney General - Public Service Division at pungpl@michigan.gov. In lieu of electronic submissions, paper copies of such notifications may be sent to the Executive Secretary and the Attorney General - Public Service Division at 7109 W. Saginaw Hwy., Lansing, MI 48917.

MICHIGAN PUBLIC SERVICE COMMISSION

Sally A. Talberg, Chairman

Norman J. Saari, Commissioner

Daniel C. Scripps, Commissioner

By its action of May 23, 2019.

Kavita Kale, Executive Secretary

REQUIREMENTS FOR AN ANTRIM NATURAL GAS WELL, POOL, OR
FIELD TO OPERATE UNDER VACUUM

I. Introduction

These requirements were developed pursuant to Mich Admin Code R, 460.867 and the Commission's May 14, 2015 order in Case No. U-16230.

The requirements are amended effective May 23, 2019, pursuant to the Commission's May 23, 2019 order in Case No. U-16230.

II. General Application Requirements

For the purpose of this document:

"Compressors, pumps, or other devices" means compressors, pumps, or any other surface equipment that could be used to draw a well below atmospheric pressure.

- A. As provided in Mich Admin Code, R 460.867, an operator shall not operate an Antrim natural gas well under vacuum without prior Commission approval. Pursuant to the May 14, 2015 order in Case No. U-16230, Antrim natural gas well operation under vacuum is conditionally approved for all operators subject to compliance with the informational and operational requirements set forth here.
- B. An operator shall submit an application to operate one or more natural gas wells under vacuum on an Antrim field or project basis. If one or more wells are to be operated under vacuum, the entire Antrim field or project must meet the requirements set forth in this document.
- C. At least 10 days prior to filing an application to operate a well or project under vacuum, notice by certified first-class mail shall be sent to any lease owners and operators adjoining the proposed well or project location. The notice shall contain at a minimum: the MPSC Well Connection Permit Number, the EGLE Drilling Permit Number, the Well Name, and the MPSC Field ID Number.
- D. All applications, notifications under Section V, and annual reports shall be submitted electronically in this docket. Applications, notifications under Section V, and annual reports shall also be provided to the Department of Environment, Great Lakes, and Energy; Oil, Gas, and Minerals Division, electronically via email to EGLE-GeologicalRecords@michigan.gov with "U-16230" included in the subject line.

- E. A filing by an operator showing that these requirements have been met shall constitute a request to operate a well or wells under vacuum. Absent an objection by Staff, the request is granted 60 days from its filing. The May 14, 2015 order, pp. 32-33, states:

Following 60 days from the filing of the appropriate request and meeting the initial six month waiting period, a natural gas well may be operated under vacuum unless the Staff files an objection to the request in this docket stating the specific reasons why operations under vacuum for that well and its associated systems should not proceed.

III. Application Verification and Required Documentation

- A. Each Antrim field or project application to operate under vacuum, shall include the actual or estimated monthly fuel consumption during the two years preceding the date of the application.
- B. Each Antrim field or project application to operate under vacuum, shall include a statement by the operator that a review has been completed verifying that all gas pipelines, well production casings, and tubings are suitable for operation under vacuum based on the design, specifications, and operating history.
- C. Each Antrim field or project application to operate under vacuum, shall include records of test results demonstrating that all gas pipelines, valves, fittings, and connections intended to be subject to vacuum were tested at a pressure and duration that is adequate to detect any leaks or failures.
- D. Each Antrim field or project application to operate under vacuum, shall include a map and/or schematic showing the location of: (1) wells; gas pipelines (including diameter, wall thickness, material, and grade); (2) compressors, pumps or other devices; (3) production facilities; (4) pressure sensing or monitoring equipment; (5) oxygen sensing or monitoring equipment; and (6) meters.

IV. Operational Requirements

- A. An operator that is operating a system under vacuum shall monitor oxygen levels at the first production facility immediately downstream of all wells operated under vacuum or at a point within the Antrim field or project downstream of all wells operated under vacuum. The operator shall establish procedures and take prompt remedial action if oxygen levels at the monitoring site are at or above 5 parts per million (ppm) for a period of 10 minutes.

- B. Each well that may be operated under vacuum shall have the capability for pressure monitoring. Vacuum pressures shall be monitored and recorded on a monthly basis.
- C. For each well that is intended to be operated under vacuum, the wellhead, aboveground valves, fittings, connections, and pipe transitions shall be inspected for leaks immediately prior to commencing vacuum operations and at least four times per year during vacuum operations.
- D. The gas pressure in the well shall be at or above atmospheric pressure before any work is performed that has the potential to introduce oxygen into the wellbore.
- E. Any future pipelines or wells within the approved Antrim field or project shall be designed and constructed to be suitable for vacuum operations.

V. Notification Requirements

- A. After a project is approved to operate under vacuum, the operator shall file supplemental information to demonstrate continuing compliance with these requirements for any facility modifications affecting vacuum operations or additional wells that will be operated under vacuum within the Antrim field or project.
- B. The operator of any Antrim field or project operating under vacuum shall file a notification prior to the addition of compressors, pumps, or other devices that will be added for the purpose of applying a vacuum or upon occurrence of pipeline failures relating to vacuum operations within the Antrim field or project, including the date, time, and location of the failure or incident.
- C. In the event an operator wishes to cease vacuum operations in an Antrim field or project that has been granted approval, the operator shall file a statement in this docket notifying the Commission of the date that vacuum operations shall cease. This notification releases the operator of its obligation to meet the ongoing requirements for the Antrim field or project and associated wells.

VI. Annual Reporting Requirements

- A. An operator of an Antrim field or project approved to operate under vacuum shall annually file a report by March 1st for the preceding year. For each Antrim field or project, the annual report shall contain: (1) all dates on which the oxygen level was measured at or above 5 ppm for a period of 10 minutes; (2) an annual analysis of fuel consumption versus the estimated incremental production (required for the first 12 months of operation only); and (3) the average monthly wellhead pressure for each well that was operated under vacuum.

- B. A report shall be filed annually, if necessary, containing an updated map and/or schematic of the Antrim field or project including the information previously stated in the Application Verification and Required Documentation section.
- C. An operator with multiple facilities may submit one report containing the necessary data for all facilities that they operate.


PROOF OF SERVICE

STATE OF MICHIGAN)

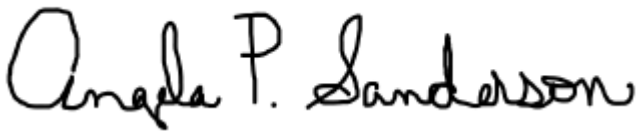
Case No. U-16230

County of Ingham)

Brianna Brown being duly sworn, deposes and says that on May 23, 2019 A.D. she electronically notified the attached list of this **Commission Order via e-mail transmission**, to the persons as shown on the attached service list (Listserv Distribution List).


Brianna Brown

Subscribed and sworn to before me
this 23rd day of May 2019.



Angela P. Sanderson
Notary Public, Shiawassee County, Michigan
As acting in Eaton County
My Commission Expires: May 21, 2024

Special Distribution

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Wolverine Power

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Volunteer Energy Services

Hillsdale Board of Public Utilities

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Direct Energy

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Realgy Corp.

Katie Abraham, MMEA

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