

New Mexico Oil & Gas Association

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May 31, 2002

**Before the OCC
Case 13268
OCD Ex. 3**

Ms. Lori Wrotenbery, Director
Oil Conservation Division
NM Department of Natural Resources
1220 S. St. Francis Street
Santa Fe, NM 87505

RE: Proposed Regulatory Change for Operating Wells Under a Partial Vacuum

Dear Ms. Wrotenbery:

As a result of the question raised in December 2000 by Mr. Frank Chavez, District Supervisor for the Aztec Field Office, about how industry was going to manage their wells going on vacuum when there was a NMOCD Rule 19.15.5.307 that prohibited the use of vacuum pumps, NMOGA has been working through its Regulatory Practices Committee to study this issue and determine a satisfactory solution to both industry and the Division. As a result of these efforts, we are pleased to provide NMOCD with our recommendations both on the existing Vacuum Rule and a newly proposed rule.

Existing Vacuum Rule NMOCD 19.15.5.307

NMOGA believes that the existing rule should be withdrawn. Although the rule was probably written with correlative rights in mind, it does not serve the needs of industry or the interests of conservation by outright banning the use of vacuum pumps. It is unclear both to NMOGA and Frank Chavez whether this would apply to the use of compressors in partially or nearly depleted gas fields so NMOGA feels that it is better to address the issue of partial vacuum due to compressors and other methods of artificial lift through a new rule.

Proposed Vacuum Rule

NMOGA proposes the following rule for promulgation by the Division to satisfy both the safety issues associated with operating individual wells or an entire field under partial vacuum:

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"USE OF VACUUM PUMPS: Vacuum pumps (including pipeline or gathering line compression or other devices creating a partial vacuum) shall not be used for the purpose of creating a partial vacuum in any stratum containing oil or gas, except as follows:

(a) Upon the applicant's filing of a sundry notice (NMOCD form C-103) in the appropriate District Office of the New Mexico Oil Conservation Division, the installation and use of vacuum pumps is authorized under this rule provided that the notice requirements provided by subparagraph (c) have been made.

(b) The sundry notice filed with the District Supervisor shall contain the following additional information:

- (1) The pipeline or gathering system operator (including name and address) for the well(s) proposed for vacuum pump installations,
- (2) **A statement that notice has been provided as required in subparagraph (c); and**
- (3) Any additional information the district supervisor may require.

(c) Each applicant shall provide notice of the vacuum operation and a copy of the sundry notice to the following:

- (1) The applicable pipeline or gathering system operator of the well(s) proposed for vacuum pump installations.

Discussion of Proposed Change

The new proposed rule will adequately address the safety and correlative rights issues raised by operating a well or field under a partial vacuum.

Safety Issues

From a safety standpoint, the primary safety issue is the introduction of oxygen into the pipeline gathering system which could cause oxygen induced corrosion. NMOGA members who are pipeline operators all endorsed a rule that would allow for operating under a vacuum as long as they receive adequate notification of the well or field in which the vacuum will occur. This will allow them to establish controls between the producer and themselves on monitoring the oxygen content at the plant and shutting down delivery of the affected area should oxygen tolerances exceed established limits.

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NMOGA research into other safety issues such as the potential for explosion from the potential introduction of oxygen into high pressure equipment or pipelines found this to be improbable. In order for an oxygen/fuel mixture to explode, it needs to be in a proper mixture that would support detonation of that mixture. Under a normal atmosphere it takes 5 – 15% methane mixed in air to detonate. Under a compressed gas environment, these ratios differ somewhat but the primary fact is that a minimum amount of oxygen is necessary to support detonation. That minimum oxygen content is approximately 12% oxygen in a gas mixture so that would calculate to a nearly 60% infiltration of air into a system in order to minimally support detonation of a mixture. Operators and pipeline companies could not operate in that type of environment so there are inherent measures in place to make such an occurrence improbable if not impossible.

Correlative Rights Issue

NMOGA does not believe that there is an issue with respect to correlative rights and accordingly does not recommend that notification to offset operators is warranted.

In closing, we appreciate the opportunity of researching this issue and coming to a potential solution as a result of Frank Chavez raising this issue as a potential problem. We met with Frank on February 22, 2002, to discuss our preliminary findings and he has been very supportive throughout this process. Additionally, we conducted a tour of the Hugoton Field, which runs from the Texas panhandle through Oklahoma and into Kansas, and which has operated on a vacuum for over 10 years and the operating results and excellent safety record there supports our proposed rule change. If you would like to discuss this further prior to proceeding with a regulatory change, we are more than willing to meet with you and your staff.

Sincerely,


Bob Gallagher
President

xc: Mr. Frank Chavez, District Supervisor, Aztec Field Office, NMOCD
Mr. Richard Ezanymin
Mr. Rick Foppiano, Co-Chairman, NMOGA Regulatory Practices Committee
Mr. Bill Carr, Co-Chairman, NMOGA Regulatory Practices Committee

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