

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION**

**APPLICATION OF THE NEW MEXICO
OIL CONSERVATION DIVISION FOR
AMENDMENTS OF 19.5.14.8 AND
19.15.16.**

**CASE NO. 14744
ORDER NO. R-13499**

ORDER OF THE COMMISSION

THIS MATTER, having come before the New Mexico Oil Conservation Commission (Commission) on October 20, 2011, October 21, 2011, and December 9, 2011 at Santa Fe, New Mexico, on the application of the New Mexico Oil Conservation Division (Division) for adoption of amendments to 19.15.14.8 NMAC and 19.15.16 NMAC and the Commission, having carefully considered public comment and the evidence and other materials submitted to it, now, on this 23rd day of January, 2012,

FINDS THAT:

1. This is a rulemaking proceeding initiated on the Division's application for adoption of amendments to 19.15.14.8 NMAC and 19.15.16 NMAC. Transcript pg. 17, lines 12-17.
2. Notice was given of the application and the hearing of this matter, and the Commission has jurisdiction of the parties and the subject matter herein.
3. After the October 20 and 21, 2011 hearing of this matter, on December 9, 2011 the Commission deliberated in open session, reviewed the proposed amendments, and voted to accept certain of them, along with some changes by the Commission. This Order indicates the Commission's analysis of certain key provisions and of the entire proposal. Additional reasons are included in the hearing transcript of the Commission deliberations.

The Division's Application

4. The Division filed its application for rule amendment on September 16, 2011 (Application). The application proposed to amend 19.15.14.8 NMAC and 19.15.16 NMAC by:
 - a) requiring an operator proposing to drill a well to obtain the consent of at least one owner of a lease or unleased interest in each tract that the well will penetrate prior to filing an application for permit to drill or spudding a well;

- b) limiting the portion of a horizontal or directional well bore that must be within the prescribed setbacks from spacing unit or project area boundaries to the "completed interval" with associated definitions;
- c) providing that a well bore with multiple laterals in the same or different target zones or formations constitutes one well;
- d) defining "standard" and "non-standard" project areas for horizontal wells; prescribing the configuration, but not the size, of a "standard project area", and requiring notice to offsetting operators or owners before an operator designates a "non-standard project area";
- e) adopting a tolerance provision that will dispense with the necessity of obtaining a "non-standard location" exception for a well designed to be located within the setbacks if it strays by less than 50 feet from its intended location;
- f) limiting the allowable for a horizontal well to the sum of the allowable for the spacing units that the well penetrates, and prescribe how the allowable for the horizontal well will be computed if its project area includes existing vertical wells;
- g) requiring the filing of two Form C-102s with an application for permit to drill for a horizontal well if the project area includes spacing units that the well bore will not penetrate – one Form C-102 to show the outer boundaries of the project area, and another to show only the spacing units that the well bore will penetrate;
- h) authorizing the surface location of a horizontal well to be outside the prescribed setbacks, or outside of the well's designated project area;
- i) providing that existing vertical wells located in a newly designated project area remain dedicated to their original spacing unit, not to the project area, and existing horizontal wells remain dedicated to their original project area even if the new project area is larger or differently configured;
- j) providing that existing rules limiting the number of wells that may be simultaneously produced from a spacing unit do not apply to horizontal wells; and
- k) requiring an operator of a horizontal well that is dedicated to a project area to consolidate ownership by either voluntary or compulsory pooling prior to producing the well.

5. The amendments to 19.15.14.8 NMAC and 19.15.16 NMAC as adopted by the Commission are attached to this Order as Attachment A. The Division's proposed amendments are in the record as OCD Exhibit 3 and OCD Exhibit 4.

The Hearing Process

6. The Commission required any person recommending alternatives to the language of the proposed amendments to submit them by October 6, 2011. The Commission received recommended alternatives from Harvey E. Yates Company and Jalapeno Corporation.

7. The Commission required any person intending to present technical testimony at the hearing to file pre-hearing statements by October 13, 2011. The Commission received pre-hearing statements from the Division, the New Mexico Oil and Gas Association, Harvey E. Yates Company, Jalapeno Corporation, and Lynx Petroleum Consultants, Inc. Attorneys for the Division, the New Mexico Oil and Gas Association, Harvey E. Yates Company, Lynx Petroleum Consultants, Inc., and the Independent Petroleum Association of New Mexico appeared and examined witnesses or otherwise participated in the hearing.

8. The Commission required written comments to be filed by October 13, 2011. Those submitting written comments included Harvey E. Yates Company and Jalapeno Corporation.

9. The Commission held a public hearing to take testimony and other evidence on the Division's proposal and proposed modifications to the Division's proposal on October 20, 2011 and October 21, 2011.

10. At the hearing, the Division presented the testimony of Richard Ezeanyim, David K. Brooks, and Ed Martin.

a) Richard Ezeanyim, a registered petroleum engineer with the Division and Chief Engineer of the Division's Engineering Bureau, testified about the process by which the Division formulated the proposed amendments and how correlative rights are protected by requiring that the "completed interval" of a well bore be confined within the setbacks from the outer boundaries of the project area. In addition, Mr. Ezeanyim testified why the current limitations on the number of wells that may be produced within a spacing unit or portion of a spacing unit are not an effective regulatory tool for protecting correlative rights as applied to horizontal wells. He also testified as to why limitations on acceleration of production are not necessary to prevent waste or protect correlative rights in most New Mexico reservoirs and in those reservoirs where such limitations are appropriate, the Division has other tools that are more appropriate to accomplish those objectives.

b) David K. Brooks, an attorney and hearing examiner for the Division and one of the persons responsible for the proposed amendments, testified regarding the Division's existing rules for horizontal wells and described how each of the Division's proposed amendments was intended to change the existing rules and the reasons for the proposed amendments.

c) Ed Martin, the District IV Supervisor for the Division, testified regarding why the proposed amendments require an operator to provide well dedication and acreage plats on Form C-102.

11. At the hearing, the New Mexico Oil and Gas Association presented the testimony of Jan Preston Spradlin, Charles E. Creekmore, and Ken McQueen.

a) Jan Preston Spradlin, a Senior Landman with Concho Resources, Inc., testified regarding the development of the proposed rule amendments and provisions in the proposed amendments concerning applications for permit to drill and the consolidation of interests in project areas prior to producing a horizontal well.

b) Charles E. Creekmore, a registered petroleum engineer with ConocoPhillips Company, testified regarding provisions in the proposed amendments governing the creation of project areas for horizontal well bores and the issue of potentially stranded tracts.

c) Ken McQueen, a petroleum engineer with Williams Exploration and Production, testified regarding drilling issues related to horizontal wells with a focus on the provisions that permit drilling outside a well's producing area provided the completed portion of the well is within the well's prescribed setbacks.

12. At the hearing, Lynx Petroleum, Inc. presented the testimony of Larry Scott. Mr. Scott testified about the history and importance of addressing the consolidation of interests in project areas prior to obtaining a permit to drill or producing a horizontal well.

13. At the hearing, Harvey E. Yates Company presented the testimony of Arlene T. Rowland. Ms. Rowland testified regarding the applicability of the compulsory pooling rules to horizontal drilling.

14. At the hearing, Jalapeno Corporation presented the testimony of Harvey E. Yates, Jr. Mr. Yates testified regarding the applicability of the compulsory pooling rules to horizontal drilling.

15. The Commission deliberated on the application in open session during its meeting on December 9, 2011.

Background

16. The Division proposed amendments to 19.15.4.8 NMAC and 19.15.16 NMAC in order to better address the new technology of horizontal drilling. Transcript (Tr.) pg. 17, lines 12-17.

17. The Division formed a workgroup consisting of members from the oil and gas industry, the New Mexico State Land Office, the United States Department of the Interior Bureau of Land Management, and the Division. Tr. pgs. 23-24, lines 25-5.

Findings Concerning the Proposed Amendments to 19.15.14.8 NMAC and 19.15.16 NMAC

19.15.14.8 NMAC (Permit to Drill, Deepen or Plug Back)

18. The Division proposed amendment of 19.15.14.8 NMAC in order to add the requirements to an application for permit to drill that prior to application the applicant must have the permission of at least one owner at the proposed bottomhole location of the well or obtain a compulsory pooling order from the Division. Tr. pgs. 31-32, lines 22-8.

19. The proposed amendment to 19.15.14.8 NMAC would codify the certification already required on Form C-102. Tr. pg. 32, lines 9-19.

20. The Division's proposed amendment of 19.15.14.8 NMAC should be adopted as modified by the Commission. In order to clarify that consent or compulsory pooling is required for vertical wells and not just horizontal or directional wells, the Commission modifies the amendment to read: "Mineral owner or lessee consent required. An operator shall not file an application for permit to drill nor commence drilling operations until the operator has either;

(1) received the consent of at least one lessee or owner of an unleased mineral interest at the proposed bottomhole location; or

(2) obtained a compulsory pooling order from the division. In addition, an operator filing an application for permit to drill for a horizontal or directional well shall comply with Subsection A of 19.15.16.15 NMAC."

NMAC (Definitions)

21. The Division proposed the definition for "completed interval" (19.15.16.7.B NMAC) in order to define that portion of a horizontal well bore that will draw hydrocarbons from the formation and that is located within the required setbacks. Tr. pg. 35, lines 19-25.

22. Currently, Division rules use the term "producing interval". Producing interval is defined as the entire portion of the well bore from where it penetrates the top of the pool to the well bore's terminus. Tr. pg. 36, lines 4-14; pgs. 119-120, lines 19-3.

23. Requiring only the "completed interval" of a horizontal well to be beyond the setbacks from adjoining tracts does not interfere with correlative rights because the portion of the well bore not included in the completed interval is behind pipe and will not be drawing hydrocarbons from the formation. Tr. pg. 38, lines 2-20; Tr. pg. 122, lines 1-21.

24. Adopting the definition for "completed interval" will reduce the number of non-standard location requests. Tr. pgs. 38-39, lines 25-9.

25. Adopting the definition for "completed interval" will reduce waste. Tr. pgs. 39-40, lines 18-15; pgs. 120-121, lines 4-25.

26. The Division proposed a definition for "horizontal well" because there currently is not one in Division rules and a definition is needed in order to clarify the difference between a directional well and a horizontal well. Tr. pgs. 40-41, lines 19-15.

27. The Division proposed to amend the existing definition of "project area" to expressly provide that project area boundaries may cross section lines and that certain types of units that exist under present law, including state exploratory units, may be treated as a project area. Tr. pgs. 41-42, lines 19-22.

28. The Commission finds that the definition should be adopted with one addition to clarify that a project area is an area that comprises one or more complete, contiguous spacing units (in one section or more than one section) that are developed by the horizontal well. As proposed by the Division a project area could include a section that is not developed by the horizontal well. Tr. pgs. 139-140, lines 7-21. Therefore "that are developed by the horizontal well" is added to the end of the Division's proposed 19.15.16.5.7.K(1).

29. The Division proposed to include a definition for "standard project area". A "standard project area" is a "project area" that is rectangular in shape. Tr. pg. 45, lines 9-17.

30. As proposed by the Division, a "project area" consisting of three 40-acre, more or less, spacing units within a single section, and excluding a fourth section adjacent thereto is rectangular and would be a "standard project area". However, as the Division has indicated, this is a result of a drafting error because the Division intended that a project area configured in this way be "non-standard" due to the omission of the fourth 40-acre unit. Tr. pg. 48, lines 1-12.

31. Therefore, the Commission finds that it should adopt the definition for "standard project area" with a modification that provides that a project area consisting of three 40-acre units within a single section and excluding the fourth spacing unit is not a standard project area. As such "provided that a project area consisting of three 40-acre units within a single section and excluding the fourth spacing unit is not a standard project area" is added to the end of the Division's proposed 19.15.16.5.7.L(4).

32. Correlative rights are protected by the proposed amendments for "project area", "standard project area", "non-standard project area", and formation of project areas. Tr. pgs. 50-51, lines 23-4. The formation of standard project areas will not impair correlative rights, and where a non-standard project area is proposed, owners who have

concerns about correlative rights will have an opportunity to present those concerns to the Division before the project area can be formed.

33. The Division proposed to modify the definition of “terminus” to include “laterals” as they are not currently included in the definition.

34. The Division proposed to include a definition of “open hole” since the term is proposed to be used in the definition of “completed interval”.

35. The Division proposed to amend the definition of “penetration point” to specifically address horizontal wells and the concept of a “completed interval”.

36. The Division proposed to amend the definition of “producing area” to refer to the project area’s “outer boundaries” rather than its north, south, east, and west boundaries and remove the reference to a “vertical” well bore so that the definition would apply to horizontal wells.

37. The Division proposed to delete the definition of “producing interval” since it would no longer be relevant if replaced with “completed interval”.

38. The Division proposed to delete the definition of “project well”. As this term is not used in 19.15.16 NMAC, the definition should be removed.

39. The Division proposed to delete the definition of “vertical well”. However, the term is used in 19.15.16.14 NMAC and it assists in differentiating vertical wells from horizontal wells, so the Commission finds that it should not remove the existing definition of “vertical well”.

40. The Division’s proposed changes to 19.15.16.7 NMAC should be adopted as modified by the Commission.

19.15.16.14.B NMAC (Directional or horizontal well bores)

41. The Division proposed amendments to 19.15.16.14.B NMAC to address horizontal well bores.

42. The proposed amendment for unorthodox locations requires an operator to obtain approval for a well bore’s completed interval that is located more than 50 feet from its projected location. This is similar to the existing requirements for a vertical well. Tr. pgs. 51-52, lines 24-10.

43. The proposed amendment concerning allowables for horizontal wells in a unit that includes an existing vertical well provides for computation of the allowable by multiplying the number of spacing units times the per-unit allowable as provided in the present rule and then deducting the entire production of that vertical well, so that the vertical well is not adversely affected as to its allowable by a subsequent horizontal well.

44. An allowable should be calculated by subtracting the lesser of the actual production from any existing well or the applicable unit allowable since an existing well that is overproducing its allowable should not be allowed to continue to do so. Tr. pg. 53, lines 16-25.

45. Correlative rights will be protected by computing the allowable for a horizontal well by multiplying the number of spacing units times the per-unit allowable and then deducting the lesser of the actual production or the applicable unit allowable of the vertical well so that the vertical well is not adversely affected as to its allowable by a subsequent horizontal well. Tr. pg. 55, lines 2-8.

46. The Commission finds that the proposed amendments to 19.15.16.14.B NMAC should be adopted with two modifications to the proposed amendment of 19.15.16.14.B(3). The Commission finds that the word "penetrates" in the second sentence should be replaced with the word "develops" as the allowable is determined by the area that the well is producing from "or developing" and not necessarily from the area penetrated by the "completed interval". In addition, the phrase "not to exceed the existing allowable for the well bore or well bores" should be added to the end of the last sentence. This clarifies that the actual production for an existing well bore cannot exceed the existing allowable the well bore or well bores. Tr. pgs. 54-55, lines 17-6.

19.15.16.15 NMAC (Special rules for horizontal wells)

47. The Division has proposed specific rules for horizontal wells in order to address the increasing use of horizontal drilling.

48. The Division has proposed a special consent provision for horizontal wells that would require an operator to have the consent of a lessee or owner of a mineral interest in each tract the horizontal well penetrates prior to approval of an application for permit to drill. Tr. pgs. 33-34, lines 19-8.

49. The requirement that consent of at least one lessee or owner of a mineral interest in each tract consent is based on the legal principal of co-tenancy, which states that if two or more people own the same tract of land, any one of them has the right to use the tract subject to a duty to account for any profits. Tr. pgs. 34-35, lines 9-8.

50. The Division proposed an amendment to require an operator to file two Form C-102s with the appropriate district office of the Division to show the project area as well as the area that the horizontal well actually penetrates. Tr. 55-56, lines 18-10. The Commission does not adopt this proposal because of its decision to modify the proposed definition of project area to require that any spacing units within the project area must be developed by the horizontal well. As such two Form C-102s are not necessary.

51. Existing wells in spacing units or project areas that are included in a newly designated project area remain dedicated to their existing spacing units or project areas

and are not part of the new project area unless otherwise agreed by all working interest owners. Tr. pg. 61, lines 7-25.

52. A new well in an existing project area can only be drilled pursuant to a joint operating agreement or consent of all the working interest owners or pursuant to a Division order, which would protect correlative rights. Tr. pgs. 62-64, lines 3-5.

53. Consolidation of ownership in a project area is necessary prior to production of a well dedicated to a project area. Tr. pg. 76, lines 11-25.

54. A project area that crosses section lines is not an "exploratory unit" if it is to be dedicated to a single well. Tr. pg. 82-83, lines 3-10.

55. Pool rules that limit the number of wells that may simultaneously produce from the portion of a pool or area underlying a spacing unit, or a particular portion of a spacing unit, do not apply to horizontal wells. An owner or operator of a tract in the same pool or project area, that is not included in the project area, who contends that a horizontal well in the project area is impairing or will impair the owner's or operator's correlative rights may file an application with the division for hearing. Tr. pgs. 64-65, lines 11-1.

56. By not applying the limit to horizontal wells the number of simultaneous well dedication exceptions will be reduced. Tr. pgs. 65-66, lines 5-1; pg. 69, lines 18-23.

57. The alternative to not applying the pool rules to horizontal wells would be to develop new pool rules tailored to the demands of horizontal well development. Tr. pg. 69, lines 4-11.

58. The compulsory pooling rule, 19.15.13 NMAC is not being amended. Tr. pgs. 70-73, lines 18-16; pgs. 106-107, lines 21-2.

59. Proposed rule 19.15.16.15.F, entitled "Compulsory pooling" should not be adopted in order to remove any suggestion that all project areas are subject to compulsory pooling.

60. Proposed 19.15.16.15.H should be changed to read, in lieu of "voluntary agreement for compulsory pooling", "voluntary agreement or, if applicable, compulsory pooling" for the same reason.

61. The proposed amendments will further conservation and prevention of waste by facilitating the drilling of horizontal wells that will produce additional hydrocarbons that may not be produced by vertical wells and will protect correlative rights. Tr. pg. 127, lines 9-12, and pg. 201, lines 14-24.

62. The proposal of Harvey E. Yates Company to amend 19.15.16.15.A(1) to prohibit drilling into a tract covered by a joint operating agreement without the consent of

the parties to the joint operating agreement and the proposals of Harvey E. Yates Company and Jalapeno Corporation to prohibit the designation of a project area including a tract covered by a joint operating agreement without such consent, are not necessary to protect correlative rights because, if the project area is subject to compulsory pooling, the Division has a duty to protect those owners' correlative rights in any order, and if it is not subject to compulsory pooling, the well could not be produced without the agreement of all owners.

63. The proposal of Harvey E. Yates Company and Jalapeno Corporation concerning the risk charge to be assessed against non-participating interest owners in compulsory pooling proceedings should not be adopted because (a) it, in effect, amends 19.15.13 NMAC, which the notice of this proceeding did not expressly contemplate amending, and (b) there is no evidence that the proposed presumption of a 50% risk charge for horizontal wells is appropriate.

64. The proposal of Jalapeno Corporation to limit compulsory pooling for a horizontal well to the area that would constitute a single spacing unit for a vertical well should not be adopted because there is no evidence that the same size or configuration of spacing unit is always, or in any particular pool or area, appropriate for horizontal as for vertical wells.

Conclusions of Law

65. NMSA 1978, Sections 70-2-11 and 70-2-12.B grant the Division authority to implement rules to carry out the purposes of the Oil and Gas Act, Chapter 70, NMSA 1978 Article 2 (the Act). NMSA 1978, Section 70-2-6.B provides that the Commission shall have concurrent jurisdiction or authority with the Division to the extent necessary for the Commission to perform its duties. Generally, the Commission adopts rules, the Division implements those rules, and the Commission hears any final administrative adjudicatory proceedings.

66. The Commission (and the Division) has a statutory duty to prevent waste and protect correlative rights. NMSA 1978, Section 70-2-11(A) and *Continental Oil Co. v. OCC*, 70 N.M. at 323, 373 P.2d at 817 (Sup.Ct. 1962).

67. The legislature has prohibited the waste of crude petroleum oil or natural gas of any type or in any form. NMSA 1978, Section 70-2-2.

68. Correlative rights means the opportunity afforded, so far as it is practicable to do so, to the owner of each property in a pool to produce without waste his just and equitable share of the oil or gas or both in the pool, being an amount, so far as can be practicably determined and so far as can be practicably obtained without waste, substantially in the proportion that the quantity of recoverable oil or gas or both under the property bears to the total recoverable oil or gas or both in the pool and, for such purpose, to use his just and equitable share of the reservoir energy. NMSA 1978, Section 70-2-33.

69. The Commission and the Division have the statutory authority and duty, upon appropriate application, to compulsory pool any "spacing or proration unit" the owners of which have not agreed to pool, in order to prevent the drilling of unnecessary wells, prevent waste or protect correlative rights. Tr. pg. 73, lines 19-25; NMSA 1978, Section 70-2-17.

70. This power extends to non-standard, as well as standard, spacing units. NMSA 1978, Section 70-2-18; *Rutter and Willbanks v. OCC*, 87 N.M. 286, 532 P.2d 582 (Sup. Ct. 1975).

71. A non-standard spacing unit may be approved and compulsory pooled in the same proceeding. *Rutter and Willbanks*.

72. The Commission and Division have the power to establish both standard and non-standard spacing and proration units. NMSA 1978, Section 70-2-11.B(10).

73. However, the extent of the Commission's and the Division's authority to establish non-standard spacing or proration units or special spacing or proration for horizontal wells has not been clearly delineated by either judicial or Commission precedent.

74. Accordingly, the Commission concludes that it would be inappropriate to adopt a rule on this subject at this time.

75. In order to forestall any possibility that the rule amendments being adopted would be construed to authorize compulsory pooling of horizontal well "project areas" without regard to applicable statutory and regulatory limitations, the proposed 19.15.16.14.F NMAC should not be adopted and the change discussed in paragraph 60 should be adopted.

76. The adoption of the amendments proposed by the Division, as modified, will assist the Division in carrying out its statutory mandates of preventing waste and protecting correlative rights, and aid oil and gas companies in utilizing horizontal well technology.

77. The requirements of the amendments proposed by the Division, as modified, are reasonable and alternative regulatory methods would not accomplish these objectives.

78. Since the Division has the mandatory duty to compulsory pool a spacing or proration unit upon the appropriate application where the prescribed predicate facts are shown, the Commission lacks the power to limit by rule the Division's authority to pool spacing units or to require the consent of particular owners to compulsory pooling.

79. Accordingly Harvey E. Yates Company's proposal to require the consent of parties to a joint operating agreement covering only part of an area to be pooled, and

Jalapeno Corporation's proposal to limit compulsory pooling for horizontal wells to spacing units already established for vertical wells, and only and in all circumstances, should not be adopted.

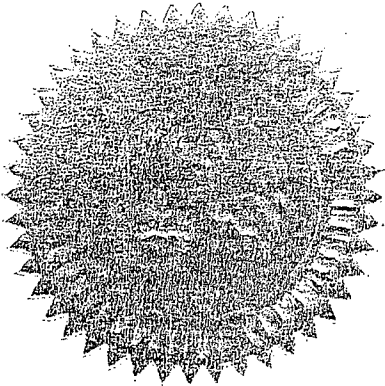
80. The Commission concludes that amendments to 19.15.14.8 NMAC and 19.15.16 NMAC be adopted in the form attached hereto as Attachment A.

IT IS THEREFORE ORDERED THAT:

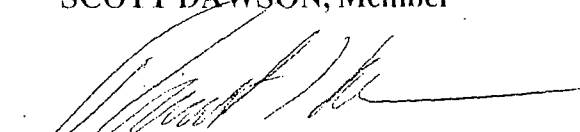
1. The Commission hereby adopts the amendments to 19.15.14.8 NMAC and 19.15.16 NMAC of the Division rules shown in Attachment A to this Order, effective as of the date of publication thereof in the New Mexico Register.
2. Division staff is instructed to secure prompt publication of the referenced rule changes in the New Mexico Register.
3. The Commission retains jurisdiction of this matter for entry of such further orders as may be necessary.

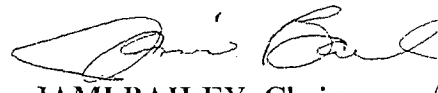
DONE at Santa Fe, New Mexico on the 23rd of January 2012.

**STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION**




SCOTT DAWSON, Member


ROBERT BALCH, Member


JAMI BAILEY, Chair

SEAL

ATTACHMENT A

19.15.14.8 PERMIT TO DRILL, DEEPEN OR PLUG BACK:

A. Permit required. An operator shall obtain ~~[a permit]~~ an approved application for permit to drill from the division prior to commencing drilling, deepening or re-entry operations, ~~[or before]~~ commencing an additional lateral, plugging a well back to a different pool, or completing or re-completing a well in an additional pool.

B. Mineral owner or lessee consent required. An operator shall not file an application for permit to drill nor commence drilling operations until the operator has either:

(1) received the consent of at least one lessee or owner of an unleased mineral interest at the proposed bottom hole location; or

(2) obtained a compulsory pooling order from the division.

In addition, an operator filing an application for permit to drill for a horizontal or directional well shall comply with Subsection A of 19.15.16.15 NMAC.

[19.15.14.8 NMAC - Rp, 19.15.3.102 NMAC, 12/1/08; A, X/X/12]

19.15.16.7 DEFINITIONS: These definitions apply specifically to 19.15.16 NMAC. For additional definitions that may apply see 19.15.2 NMAC.

A. "Azimuth" means the deviation in the horizontal plane of a well bore expressed in terms of compass degrees.

B. "Completed interval" means that portion of a well bore or lateral that is:

(1) cased, cemented and perforated;

(2) an open hole; or

(3) isolated by a packer or other non-permeable means and open to the formation.

~~[B.]~~C. "Deviated well" means a well bore that is intentionally deviated from vertical but not with an intentional azimuth.

~~[C.]~~D. "Directional well" means a well bore that is intentionally deviated from vertical with an intentional azimuth.

E. "Horizontal well" means a directional well bore with one or more laterals that extend a minimum of 100 feet horizontally in the target zone. A well with multiple laterals from a common well bore in the same or different target zones or formations shall be considered one well.

~~[D.]~~F. "Kick-off point" means the point at which a directional well is intentionally deviated from vertical.

~~[E.]~~G. "Lateral" means a portion of a directional well past the point where the well bore has been intentionally departed from the vertical.

H. "Non-standard project area" means a project area that is not a standard project area.

I. "Open hole" means that portion of a well bore or lateral that is:

(1) not cased, or

(2) cased, but the casing is not cemented in place, and is not otherwise isolated from the formation.

~~[F.].~~ I. "Penetration point" means the ~~[point where a directional well penetrates the top of the pool from which it is intended to produce]~~ beginning of the completed interval of a horizontal or other directional well or lateral.

~~[G.].~~ K. "Producing area" means the portion of a project area that lies within a window formed by plotting the measured distance from the project area's ~~[north, south, east and west]~~ outer boundaries, inside of which a ~~[vertical]~~ well bore can be drilled and produced in conformity with the setback requirements from the outer boundary of a standard spacing unit for the applicable ~~[pools]~~ pool.

~~[H.].~~ "Producing interval" means that portion of a directional well drilled inside a pool's vertical limits between its penetration point and its terminus.

I. "Project area" means an area the operator designates on form C-102 that a spacing unit's outer boundaries enclose, a combination of complete, contiguous spacing units or an approved secondary, tertiary or pressure maintenance project.]

L. "Project area" means an area the operator designates on form C-102, well location and acreage dedication plat that comprises

(1) one or more complete, contiguous spacing units (in one section or in more than one section) that are developed by the horizontal well; or

(2) an entire voluntary or statutory unit for an approved enhanced recovery or pressure maintenance project, an approved state exploratory unit, or a participating area in a federal unit.

M. "Standard project area" means a project area that

(1) is described in Paragraph (2) of Subsection K of 19.15.16.7 NMAC;

(2) consists of a single spacing unit;

(3) consists of two or more spacing units within a single section that collectively comprise:

(a) the entire section, a half-section or half-section equivalent, or a quarter section or quarter-section equivalent; or

(b) the north, south, east or west half of a half-section or half-section equivalent or of a quarter section or quarter-section equivalent; or

(4) consists of a combination of two or more otherwise standard project areas, if the resulting area is substantially in the form of a rectangle; provided that a project area consisting of three 40-acre units within a single section and excluding the fourth spacing unit is not a standard project area.

[J.]. "Project well" means a well drilled, completed, produced or injected into as either a vertical well, deviated well or directional well.

K. "Spacing unit" means the acreage that is dedicated for a well in accordance with 19.15.15 NMAC. Included in this definition is a unit of proration for oil or gas as defined by the division and all non-standard units the division has previously approved.]

[L.]. N. "Terminus" means the farthest point attained along the well bore or lateral.

[M.]. O. "Vertical well" means a well that does not have an intentional departure or course deviation from the vertical.

[19.15.16.7 NMAC - Rp, 19.15.3.111 NMAC, 12/1/08; A, X/X/12]

19.15.16.14 DEVIATION TESTS [AND]; DEVIATED, DIRECTIONAL AND HORIZONTAL WELLS:

A. Deviated well bores.

(1) Deviation tests required. An operator shall test a vertical or deviated well that is drilled or deepened at reasonably frequent intervals to determine the deviation from the vertical. The operator shall make the tests at least once each 500 feet or at the first bit change succeeding 500 feet. The operator shall file with the division a tabulation of deviation tests run, that is sworn to and notarized, with form C-104.

(2) Excessive deviation. When the deviation averages more than five degrees in a 500-foot interval, the operator shall include the calculations of the hole's maximum possible horizontal displacement. When the maximum possible horizontal displacement exceeds the distance to the appropriate unit's nearest outer boundary line the operator shall run a directional survey to establish the location of the producing interval or intervals.

(3) Unorthodox locations. If the results of the directional survey indicate that the producing interval is more than 50 feet from the approved surface location and closer than the minimum setback requirements to the applicable unit's outer boundaries, then the well is considered unorthodox. To obtain authority to produce the well, the operator shall file an application with the director with a copy to the appropriate division district office, and shall otherwise follow the normal process outlined in Subsection C of 19.15.15.13 NMAC to obtain approval of the unorthodox location.

(4) Directional survey requirements. Upon the director's request, the operator shall directionally survey a vertical or deviated well. The operator shall notify the appropriate division district office of the approximate time the operator will conduct the directional survey. The operator shall file directional surveys run on a well with the division upon the well's completion. The division shall not assign an allowable to the well until the operator has filed the directional surveys.

B. Directional or horizontal well bores.

(1) Directional drilling within a project area. The appropriate division district office may grant a permit to directionally drill a well bore if the producing interval is entirely within the producing area or at an unorthodox location the division previously approved. Additionally, if the project area consists of a combination of drilling units and includes state, federal or tribal lands, the operator shall send a copy of form C-102 to the state land office or the BLM, as applicable.

(2) Unorthodox ~~[well bores]~~ locations. If all or part of a directional well bore's ~~[producing]~~ completed interval is projected to be outside of the producing area, or if any portion of a directional well bore's completed interval, as drilled, is located more than 50 feet from its projected location as indicated on form C-102 filed with the application for permit to drill the well and is outside of the producing area, the well's location is considered unorthodox. To obtain approval for the well's location, the ~~[applicant]~~ operator shall file a written application in ~~[duplicate with the director with a copy to the appropriate division district office and shall otherwise follow the normal process in]~~ the Santa Fe office of the division in accordance with Subsection C of 19.15.15.3] 19.15.15.13 NMAC.

(3) Allowables for project areas with multiple proration units. The division shall ~~[base the maximum allowable it assigns]~~ assign to ~~[the]~~ a project area within a prorated pool ~~[upon]~~ an allowable equal to the applicable unit allowable for the pool multiplied by the number of standard spacing units or approved non-standard

spacing units [~~that the directional well bore's producing interval develops or traverses. The maximum allowable shall apply to production from the project area, including vertical well bores on standard spacing units inside the project area.~~] that a horizontal well's or lateral's completed interval develops. If a project area includes a spacing unit or smaller project area dedicated to an existing well bore, unless the operators of all wells in the project area otherwise agree, the project area's allowable shall be computed by deducting the actual production from the existing well bore or well bores from the total allowable for the project area not to exceed the existing allowable for the well bore or well bores.

(4) Directional surveys required. An operator shall run a directional survey on each well drilled pursuant to Subsection B of 19.15.16.14 NMAC. The operator shall notify the appropriate division district office of the approximate time the operator will conduct the directional survey. The operator shall file a directional survey run on a well with the division upon the well's completion. The division shall not assign an allowable to the well until the operator files the directional survey. If the directional survey indicates that part of the producing interval is outside of the producing area, or, in the case of an approved unorthodox location, less than the approved setback requirements from the applicable unit's outer boundary, then the operator shall file an application with the director with a copy to the appropriate division district office and shall otherwise follow the normal process outlined in Subsection C of 19.15.15.13 NMAC to obtain approval of the unorthodox location.

(5) Re-entry of vertical or deviated well bores for directional drilling projects. These well bores are considered orthodox provided the surface location is orthodox and the producing interval's location is within the tolerance allowed for deviated well bores under Paragraph (3) of Subsection A of 19.15.16.14 NMAC.

C. Additional matters.

(1) Directional surveys that 19.15.16.14 NMAC requires shall have shot points no more than 200 feet apart and shall be run by competent surveying companies that are approved by the director. The division shall allow exceptions to the minimum shot point spacing provided the survey's accuracy is still within acceptable limits.

(2) The director may set an application for administrative approval whereby the operator shall submit appropriate information and give notice as the director requests. The division may approve un-protested applications administratively within 20 days after the division receives the application and supporting information. If the application is protested, or the director decides that a hearing is appropriate, the division may set the application for hearing.

(3) The division shall grant permission to deviate or directionally drill a well bore for any reason or in a manner not provided for in 19.15.16.14 NMAC only after notice and opportunity for hearing.

[19.15.16.14 NMAC - Rp, 19.15.3.111 NMAC, 12/1/08; A, X/X/12]

19.15.16.15 SPECIAL RULES FOR HORIZONTAL WELLS:

A. Directional and horizontal well consent requirement. An operator shall not file an application for permit to drill nor commence drilling of a horizontal or directional well until the operator has either:

(1) received the consent of at least one lessee or owner of an unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located; or

(2) obtained a compulsory pooling order from the division.

B. Setbacks.

(1) Horizontal wells drilled in project areas as defined in Subsection I of 19.15.16.17 NMAC shall have setbacks from the outer boundaries of the project area the same as if the well were drilled in a single spacing unit for the pool.

(2) Subject to the provisions of Paragraph (2) of Subsection B of 19.15.16.14 NMAC, every point of the completed interval must meet the minimum setback requirement from the outer boundaries of the project area, or an exception must be approved for a non-standard location.

(3) No internal setbacks are required within the project area.

(4) A horizontal well's surface location may be outside the setbacks or outside the project area provided, that the completed interval is entirely within the project area and complies with the applicable setback requirements.

C. Existing and subsequent wells in project areas.

(1) Existing wells in spacing units or project areas that are included in a newly designated project area remain dedicated to their existing spacing units or project areas and are not part of the new project area unless otherwise agreed by all working interest owners in the existing and newly designated project areas.

(2) Subject to the terms of any applicable joint operating agreement, subsequent wells with a completed interval in a horizontal well's project area may be drilled only with the approval of all working interest owners in the project area, or by order of the division after notice to all working interest owners in the project area and opportunity for hearing.

D. Pool rules. Provision of statewide rules or special pool orders in effect on [effective date of this amendment], 2012 that limit the number of wells that may simultaneously produce from the portion of a pool or area underlying a spacing unit, or a particular portion of spacing unit, do not apply to horizontal wells. Without limitation of any other right or remedy, an owner or operator of a tract in the same pool as a project area, that is not included in the project area, who contends that a horizontal well in the project area is impairing, or will impair, the owner's or operator's correlative rights may file an application with the division. The division, after notice and hearing, may grant such relief as it determines to be necessary and appropriate, including, but not limited to, imposing a limitation on the rate or amount of production from the project area.

E. Formation of project areas:

(1) Except as provided in Paragraphs (2) and (3) of Subsection G of 19.15.16.15 NMAC, a project area may be formed by filing a form C-102 designating the proposed project area, and simultaneously mailing or delivering a copy thereof to the New Mexico state land office if the proposed project area includes state trust lands.

(2) Before designating a non-standard project area, the operator shall give 20-days notice by certified mail, return receipt requested, to affected persons, as defined in Subparagraph (a) of Paragraph (2) of Subsection A of 19.15.4.12 NMAC, in all spacing units that

(a) are excluded from the project area, if the project area would be a standard project area except for the exclusion of one spacing unit; or

(b) adjoin the project area, in all other cases.

(3) The notice shall state that the affected persons may protest the designation of a non-standard project area by mailing a protest to the operator within 20 days after mailing of notice as provided in Paragraph (2) of Subsection E of 19.15.16.15 NMAC. Within seven business days after receiving a protest of the proposed non-standard project area, the operator shall notify the division of the protest, and the division shall set the matter for hearing. Unless otherwise authorized by the division, the operator shall not commence drilling in the proposed non-standard project area until the protest has been determined by division order.

(4) No project area may be designated that lies partly within, and partly outside of, a state exploratory unit, or a federal exploratory unit or participating area if the project area includes state trust lands, without the written consent of the commissioner of public lands.

F. Consolidation of project area. If a horizontal well is dedicated to a project area in which there is more than one owner of any interest in the mineral estate, the operator of the horizontal well shall cause the project area to be consolidated by voluntary agreement or, if applicable, compulsory pooling before the division may approve a request for form C-104 for the horizontal well.

[19.15.16.15 NMAC - Rp, 19.15.3.112 NMAC, 12/1/08; 19.15.16.15 NMAC - N, X/X/12]

[19.15.16.15] 19.15.16.16 MULTIPLE COMPLETIONS; BRADENHEAD GAS WELLS:

A. Multiple completions.

(1) Filing. An operator intending to multiple complete shall file form C-101 or C-103 with the division for approval before completing and C-104 after completing along with information required by the form instructions.

(2) Operation and testing.

(a) The operator shall complete and produce wells so that commingling of hydrocarbons from separate pools does not occur.

(b) The operator shall commence a segregation or packer leakage test within 20 days after the multiple completion. The operator shall also make segregation tests or packer leakage tests any time the packer is disturbed. The operator shall conduct other tests and determinations the division requires. The operator shall notify the appropriate division district office 48 hours in advance of tests so the district office may schedule personnel to witness the tests. Offset operators may witness such tests and shall advise the operator in writing if they desire to be notified of the tests. The operator shall file test results with the division within 20 days of test completion. In the event a segregation or packer leakage test indicates communication between separate pools, the operator shall immediately notify the division and commence corrective action on the well.

(c) The operator shall equip wells so that reservoir pressure may be determined for each of the separate pools, and may install meters so that the gas or oil produced from each of the separate pools may be accurately measured.

(d) No multiple completion shall produce in a manner unnecessarily wasting reservoir energy.

(e) The division may require the operator to properly plug a zone of a multiple-completed well if the plugging appears necessary to prevent waste, protect correlative rights or protect ground water, public health or the environment.

B. Bradenhead gas wells.

(1) The division may permit production of gas from a bradenhead gas well only after hearing, except as noted in Paragraph (3) of Subsection B of ~~[19.15.16.15]~~ 19.15.16.16 NMAC.

(2) The operator shall submit the application for a hearing to the division in triplicate and include an exhibit showing the location of wells on applicant's lease and offset wells on offset leases, together with a diagrammatic sketch showing the casing program, formation tops, estimated top of cement on each casing string run and other pertinent data, including drill stem tests.

(3) The director may grant an exception to Subsection A of ~~[19.15.16.15]~~ 19.15.16.16 NMAC's requirements without notice and hearing where the operator files the application in due form, and when the lowermost producing zone involved in the completion is an oil or gas producing zone within an oil or gas pool's defined limits and the producing zone to be produced through the bradenhead connection is a gas producing zone within a gas pool's defined limits. The applicant shall include with the application a written stipulation that the applicant has properly notified offset operators.

(4) The applicant shall furnish operators who offset the lease upon which the subject well is located a copy of the application. The director shall wait at least 10 days before approving gas production from the bradenhead gas well, and shall approve the production only in the absence of an offset operator's objection. If an operator objects to the completion the director shall consider the matter only after proper notice and hearing.

(5) The division may waive the 10-day waiting period requirement if the applicant furnishes the division with the written consent to the production of gas from the bradenhead connection by the offset operators involved.

(6) Subsection B of ~~[19.15.16.15]~~ 19.15.16.16 NMAC shall apply only to wells completed after January 1, 1950 or, in Lea County after February 1, 1937, as bradenhead gas wells.

[19.15.16.16 NMAC - Rp, 19.15.3.113 NMAC, 12/1/08; 19.15.16.16 NMAC - Rn, 19.15.16.15 NMAC, x/x/12]

~~[19.15.16.16]~~ 19.15.16.17 SHOOTING AND CHEMICAL TREATMENT OF

WELLS: If shooting, fracturing or treating a well injures the producing formation, injection interval, casing or casing seat and may create underground waste or contaminate fresh water, the operator shall within five working days notify in writing the division and proceed with diligence to use the appropriate method and means for rectifying the damage. If shooting, fracturing or chemical treating results in the well's irreparable injury the division may require the operator to properly plug and abandon the well.

[19.15.16.17 NMAC - Rp, 19.15.3.115 NMAC, 12/1/08; 19.15.16.17 NMAC - Rn, 19.15.16.16 NMAC, x/x/12]

~~[19.15.16.17]~~ **19.15.16.18 WELL AND LEASE EQUIPMENT:**

A. The operator shall install and maintain christmas tree fittings or wellhead connections in first class condition so that necessary pressure tests may easily be made on flowing wells. On oil wells the christmas tree fittings shall have a test pressure rating at least equivalent to the calculated or known pressure in the reservoir from which production is expected. On gas wells the christmas tree fittings shall have a test pressure equivalent to at least 150 percent of the calculated or known pressure in the reservoir from which production is expected.

B. The operator shall install and maintain valves in good working order to permit pressures to be obtained on both casing and tubing. The operator shall equip each flowing well to control properly the flowing of each well, and in case of an oil well, produce the well into an oil and gas separator of a type the industry generally uses. [19.15.16.18 NMAC - Rp, 19.15.3.117 NMAC, 12/1/08; 19.15.16.18 NMAC - Rn, 19.15.16.17 NMAC, x/x/12]

~~[19.15.16.18]~~ **19.15.16.19 LOG, COMPLETION AND WORKOVER REPORTS:**

Within 20 days after the completion of a well drilled for oil or gas, or the recompletion of a well into a different common source of supply, the operator shall file a completion report with the division on form C-105. For the purpose of ~~[19.15.16.18]~~ 19.15.16.19 NMAC, a hole drilled or cored below fresh water or that penetrates oil- or gas-bearing formations or that an owner drills is presumed to be a well drilled for oil or gas. [19.15.16.19 NMAC - Rp, 19.15.13.1104 NMAC, 12/1/08; 19.15.16.19 NMAC - Rn & A, 19.15.16.18 NMAC, x/x/12]

~~[19.15.16.19]~~ **19.15.16.20 ALLOWABLES AND AUTHORIZATION TO TRANSPORT OIL AND GAS:**

A. The division may assign an allowable to a newly completed or re-completed well or a well completed in an additional pool or issue an operator authorization to transport oil or gas from the well if the operator:

- (1) has filed a complete form C-104;
- (2) has provided a sworn and notarized tabulation of all deviation tests the operator has run on the well, and directional surveys with calculated bottom hole location, in accordance with the requirements of 19.15.16.14 NMAC;
- (3) has dedicated a standard unit for the pool in which the well is completed, a standard unit has been communitized or pooled and dedicated to the well or the division has approved a non-standard unit; and
- (4) is in compliance with Subsection A of 19.15.5.9 NMAC.

B. The allowable the division assigns to an oil well is effective at 7:00 a.m. on the completion date, provided the division receives form C-104 during the month of completion. The date of completion shall be that date when new oil is delivered into the stock tanks. Unless otherwise specified by special pool orders, the allowable the division assigns to a gas well is effective at 7:00 a.m. on the date of connection to a gas transportation facility, as evidenced by an affidavit of connection from the transporter to the division, or the date of receipt of form C-104 by the division, whichever date is later. [19.15.16.20 NMAC - Rn, 19.15.16.19 NMAC, X/X/12]