

TITLE 19 NATURAL RESOURCES AND WILDLIFE
CHAPTER 15 OIL AND GAS
PART 16 DRILLING AND PRODUCTION

19.15.16.1 ISSUING AGENCY: Oil Conservation Commission.
[19.15.16.1 NMAC - Rp, 19.15.3.1 NMAC, 12/1/2008; A, 6/26/2018]

19.15.16.2 SCOPE: 19.15.16 NMAC applies to persons engaged in the drilling and production of oil and gas wells within New Mexico.
[19.15.16.2 NMAC - Rp, 19.15.3.2 NMAC, 12/1/2008]

19.15.16.3 STATUTORY AUTHORITY: 19.15.16 NMAC is adopted pursuant to the Oil and Gas Act, Section 70-2-6, Section 70-2-11 and Section 70-2-12 NMSA 1978.
[19.15.16.3 NMAC - Rp, 19.15.3.3 NMAC, 12/1/2008; A, 6/26/2018]

19.15.16.4 DURATION: Permanent.
[19.15.16.4 NMAC - Rp, 19.15.3.4 NMAC, 12/1/2008]

19.15.16.5 EFFECTIVE DATE: December 1, 2008, unless a later date is cited at the end of a section.
[19.15.16.5 NMAC - Rp, 19.15.3.5 NMAC, 12/1/2008]

19.15.16.6 OBJECTIVE: To regulate the drilling and production of oil and gas wells within the state.
[19.15.16.6 NMAC - Rp, 19.15.3.6 NMAC, 12/1/2008]

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.

C. “Deviated well” means a well bore that is intentionally deviated from vertical but not with an intentional azimuth.

D. “Directional well” means a well bore that is intentionally deviated from vertical with an intentional azimuth but is not a horizontal well.

E. “First take point” means the shallowest measured depth of the well bore where the completed interval starts.

F. “Horizontal spacing unit” means the spacing unit dedicated to a horizontal well.

G. “Horizontal well” means a well bore with one or more laterals that extend a minimum of 100 feet laterally 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.

H. “Infill horizontal well” means a horizontal well the completed interval or intervals of which are located wholly within the horizontal spacing unit dedicated to a previously drilled or proposed horizontal well in the same pool and that the operator designates as an infill horizontal well on form C-102. For the purposes of this definition, “proposed” means that an APD has been submitted to a regulatory agency.

I. “Kick-off point” means the point at which a directional or horizontal well is intentionally deviated from the vertical.

J. “Last take point” means the deepest measured depth of the well bore where the completed interval ends.

K. “Lateral” means the portion of a directional or horizontal well past the point where the well bore has been intentionally deviated from the vertical.

L. “Multi-lateral well” means a horizontal well with multiple laterals from a common well bore in the same or different target zones or formations.

M. “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.

N. “**Terminus**” means the farthest point drilled along the well bore or lateral.

O. “**Tract**” means a legal subdivision of the United States public survey substantially in the form of a square or rectangle.

P. “**Unitized area**” means any area where ownership of production from the relevant pool or formation is consolidated pursuant to an agreement, whether voluntary and filed in the county land records, or approved by federal or state authority, including but not limited to a statutory unit, an approved enhanced recovery unit, a participating area in a federal exploratory unit, a federal unit which does not provide for participating areas, a state exploratory unit or a communitized unit if all interests in the communitized unit are committed to the communitization agreement.

Q. “**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, 12/1/2008; A, 2/15/2012; A, 6/26/2018]

19.15.16.8 SIGN ON WELLS:

A. An operator shall identify wells and related facilities the division regulates by a sign, which shall remain in place until the operator plugs and abandons the well and closes the related facilities.

B. For drilling wells, the operator shall post the sign on the derrick or not more than 20 feet from the well.

C. The sign shall be of durable construction and the lettering shall be legible and large enough to be read under normal conditions at a distance of 50 feet.

D. The wells on each lease or property shall be numbered in non-repetitive, logical and distinctive sequence.

E. An operator shall have 90 days from the effective date of an operator name change to change the operator name on the well sign unless the division grants an extension of time, for good cause shown along with a schedule for making the changes.

F. Each sign shall show the:

(1) well number;

(2) property name;

(3) operator’s name;

(4) location by footage, quarter-quarter section, township and range (or unit letter can be substituted for the quarter-quarter section); and

(5) API number.

[19.15.16.8 NMAC - Rp, 19.15.3.103 NMAC, 12/1/2008]

19.15.16.9 SEALING OFF STRATA:

A. During the drilling of an oil well, injection well or other service well, the operator shall seal and separate the oil, gas and water strata above the producing or injection horizon to prevent their contents from passing into other strata.

B. The operator shall ensure that fresh waters and waters of present or probable value for domestic, commercial or stock purposes are confined to their respective strata and are adequately protected by division-approved methods. The operator shall take special precautions by methods satisfactory to the division in drilling and abandoning wells to guard against loss of artesian water from the strata in which it occurs, and the contamination of artesian water by objectionable water, oil or gas.

C. The operator shall ensure that water is shut off and excluded from the various oil- and gas-bearing strata that are penetrated. The operator shall ordinarily make water shut-offs by cementing casing.

[19.15.16.9 NMAC - Rp, 19.15.3.106 NMAC, 12/1/2008]

19.15.16.10 CASING AND TUBING REQUIREMENTS:

A. The operator shall equip a well drilled for oil or gas with surface and intermediate casing strings and cement as may be necessary to effectively seal off and isolate all water-, oil- and gas-bearing strata and other strata encountered in the well down to the casing point. In addition, the operator shall equip a well completed for oil or gas production with a string of properly cemented production casing at sufficient depth to ensure protection of oil- and gas-bearing strata encountered in the well, including the strata to be produced.

B. The operator shall use sufficient cement on surface casing to fill the annular space behind the

casing to the top of the hole, provided that authorized division field personnel may allow exceptions to this requirement when known conditions in a given area render compliance impracticable.

C. Cementing shall be by pump and plug method unless the division expressly authorizes some other method.

D. Cementing shall be with conventional-type hard-setting cements to which the operator has added additives (lighteners, densifiers, extenders, accelerators, retarders, etc.) to suit conditions in the well.

E. Authorized division field personnel may, when conditions warrant, allow exceptions to Subsection D of 19.15.16.10 NMAC and permit the operator to use oil-base casing packing material in lieu of hard-setting cements on intermediate and production casing strings; provided that when the operator uses such materials on the intermediate casing string, the operator places conventional-type hard-setting cements throughout all oil- and gas-bearing zones and throughout at least the lowermost 300 feet of the intermediate casing string. When the operator uses such materials on the production casing string, the operator shall place conventional-type hard-setting cements throughout all oil- and gas-bearing zones that shall extend upward a minimum of 500 feet above the uppermost perforation or, in the case of an open-hole completion, 500 feet above the production casing shoe.

F. The operator shall test casing strings and prove satisfactory as provided in Subsection I of 19.15.16.10 NMAC.

G. After cementing, but before commencing tests Subsection I of 19.15.16.10 NMAC requires, all casing strings shall stand cemented in accordance with one of the options in Paragraphs (1) and (2) of Subsection G of 19.15.16.10 NMAC. Regardless of which option the operator chooses, the casing shall remain stationary and under pressure for at least eight hours after the operator places the cement. Casing shall be under pressure if the operator uses some acceptable means of holding pressure or if the operator employs one or more float valves to hold the cement in place. The operator shall either

(1) allow casing strings to stand cemented a minimum of 18 hours prior to commencing tests; an operator using this option shall report on form C-103 the actual time the cement was in place before the operator initiated tests; or

(2) in the counties of San Juan, Rio Arriba, McKinley, Sandoval, Lea, Eddy, Chaves and Roosevelt only, allow casing strings to stand cemented until the cement reaches a compressive strength of at least 500 psi in the "zone of interest" before commencing tests; provided however, that the operator shall not commence tests until the cement is in place for at least eight hours.

(a) The "zone of interest" for surface and intermediate casing strings is the bottom 20 percent of the casing string, but is no more than 1000 feet nor less than 300 feet of the bottom-part of the casing unless the casing is set at less than 300 feet. The "zone of interest" for production casing strings includes the interval or intervals where immediate completion is contemplated.

(b) To determine that a minimum compressive strength of 500 psi has been attained, the operator shall use the typical performance data for the particular cement mix used in the well, at the minimum temperature indicated for the zone of interest by Figure 107-A, Temperature Gradient Curves. Typical performance data used shall be that data the cement manufacturer or a competent materials testing agency furnishes, as determined in accordance with the latest edition of API publication Recommended Practice for Testing Well Cements, RP 10B-2.

(See Temperature Gradient - Page 17A)

H. An operator using the compressive strength criterion in Paragraph (2) of Subsection G of 19.15.16.10 NMAC shall report the following information on form C-103:

(1) volume of cement slurry in cubic feet and brand name of cement and additives, percent additives used and sequence of placement if the operator uses more than one type cement slurry;

(2) approximate temperature of cement slurry when mixed;

(3) estimated minimum formation temperature in zone of interest;

(4) estimate of cement strength at time of casing test; and

(5) actual time cement in place prior to starting test.

I. The operator shall test casing strings except conductor pipe after cementing and before commencing other operations on the well. The operator shall file form C-103 with the division for each casing string reporting the grade and weight of pipe used. In the case of combination strings utilizing pipe of varied grades or weights, the operator shall report the footage of each grade and weight used. The operator shall also report results of the casing test, including actual pressure held on pipe and the pressure drop observed on the same form C-103.

(1) The operator shall pressure test casing strings in wells drilled with rotary tools. Minimum casing test pressure shall be approximately one-third of the manufacturer's rated internal yield pressure except that the test pressure shall not be less than 600 psi and need not be greater than 1500 psi. In cases where

combination strings are involved, the above test pressure shall apply to the lowest pressure rated casing used. The operator shall apply test pressures for a period of 30 minutes. If a drop of more than ten percent of the test pressure occurs the casing shall be considered defective and the operator shall apply corrective measures.

(2) The operator may test casing strings in wells drilled with cable tools as outlined in Paragraph (1) of Subsection I of 19.15.16.10 NMAC, or by bailing the well dry in which case the hole shall remain satisfactorily dry for a period of at least one hour before the operator commences further operations on the well.

J. Well tubing requirements.

(1) The operator shall tube flowing oil wells equipped with casing larger in size than two and seven-eighths inch OD.

(2) The operator shall tube gas wells equipped with casing larger in size than three and one-half inch OD.

(3) The operator shall set tubing as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone.

(4) The district supervisor of the appropriate division district office, upon application, may grant exceptions to these requirements, provided waste will not be caused.

(5) The district supervisor may request that the director review an application. The operator shall submit information and give notice as the director requests. The division may approve un-protested applications after 20 days of receipt of the application and supporting information. If a person protests the application, or the director decides, the division shall set the application for hearing.

[19.15.16.10 NMAC - Rp, 19.15.3.107 NMAC, 12/1/2008]

19.15.16.11 DEFECTIVE CASING OR CEMENTING: If a well appears to have a defective casing program or faultily cemented or corroded casing that will permit or may create underground waste or contamination of fresh waters, the operator shall give written notice to the division within five working days and proceed with diligence to use the appropriate method and means to eliminate the hazard. If the hazard of waste or contamination of fresh water cannot be eliminated, the operator shall properly plug and abandon the well.

[19.15.16.11 NMAC - Rp, 19.15.3.108 NMAC, 12/1/2008]

19.15.16.12 BLOWOUT PREVENTION: (See Subsection B of 19.15.10 NMAC also)

A. The operator shall install and maintain blowout preventers in good working order on drilling rigs operating in areas of known high pressures at or above the projected depth of the well and in areas where pressures that will be encountered are unknown, and on workover rigs working on wells in which high pressures are known to exist.

B. The operator shall install and maintain blowout preventers in good working order on drilling rigs and workover rigs operating within the corporate limits of a city, town or village, or within 1320 feet of habitation, a school or a church, wherever located.

C. An operator, when filing form C-101 or form C-103 for an operation requiring blowout prevention equipment in accordance with Subsections A and B of 19.15.16.12 NMAC, shall submit a proposed blowout prevention program for the well. The district supervisor may modify the program as submitted if, in the district supervisor's judgment, modification is necessary.

[19.15.16.12 NMAC - Rp, 19.15.3.109 NMAC, 12/1/2008]

19.15.16.13 PULLING OUTSIDE STRINGS OF CASING: In pulling outside strings of casing from an oil or gas well, the operator shall keep and leave the space outside the casing left in the hole full of mud-laden fluid or cement of adequate specific gravity to seal off fresh and salt water strata and strata bearing oil or gas not producing.

[19.15.16.13 NMAC - Rp, 19.15.3.110 NMAC, 12/1/2008]

19.15.16.14 DEVIATION TESTS AND WELLBORE SURVEYS; VERTICAL, DEVIATED AND DIRECTIONAL WELLS:

A. Vertical and 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 along with its form C-104 a tabulation of deviation tests run that is sworn to and notarized.

(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 well's completed interval.

(3) **Unorthodox well locations.** If the results of the directional survey of a vertical or deviated well indicate that the completed interval is more than 50 feet from the approved surface location and closer than the minimum setback requirements to the applicable unit's outer boundary, then the well is considered unorthodox. To obtain authority to produce the well, the operator shall file an application with the division's Santa Fe office, and shall follow the process outlined in Subsection C of 19.15.15.13 NMAC to obtain approval of the unorthodox well location.

(4) **Directional survey requirements.** Upon the director's request, the operator shall directionally survey a vertical or deviated well. The operator shall file directional surveys run on a well, in division-approved format, with the division upon the well's completion. The division shall not approve a form C-104 for the well until the operator has filed the directional surveys.

B. Directional well bores.

(1) **Directional drilling.** The appropriate division district office may grant a permit to directionally drill a well bore if every point of the completed interval is projected to be located at a distance greater than or equal to the minimum setback distance from the applicable spacing unit's outer boundaries or at an unorthodox well location the division previously approved.

(2) **Unorthodox well locations.** If all or part of a directional well's completed interval is projected to be located less than the minimum distance from the outer boundary of the well's spacing unit, the well's location is considered unorthodox. To obtain approval for the well's location, the operator shall file an application in the division's Santa Fe office in accordance with Subsection C of 19.15.15.13 NMAC.

(3) **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 file a directional survey, in division-approved format, with the division upon the well's completion. The division shall not approve a form C-104 for the well until the operator files the directional survey. The well's location will be considered unorthodox if the directional survey indicates that part of a well's completed interval, as drilled, is located more than 50 feet from its projected location and closer to an outer boundary of the spacing unit than applicable minimum setback distance. For previously approved unorthodox well locations, the well's as-drilled location is unorthodox if the directional survey indicates that any part of the completed interval is located more than 50 feet (or, if less, twenty-five percent of the previously authorized distance) closer to the outer boundary of the spacing unit than the approved location.

C. Directional survey specifications. 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. The division shall allow exceptions to the minimum shot point spacing provided the survey's accuracy is still within acceptable limits. [19.15.16.14 NMAC - Rp, 19.15.3.111 NMAC, 12/1/2008; A, 2/15/2012; A, 6/26/2018]

19.15.16.15 HORIZONTAL WELLS:

A. General provisions.

(1) An operator shall not file an application for permit to drill nor commence the drilling of a horizontal oil or gas well until the operator has either:

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

(b) obtained a compulsory pooling order from the division for an appropriate horizontal spacing unit.

(2) Each horizontal well shall be dedicated to a standard horizontal spacing unit or an approved non-standard horizontal spacing unit, except for infill horizontal wells and multi-lateral horizontal wells described in Subparagraph (a) of Paragraph (7) of Subsection B of 19.15.16.15 NMAC, which may be dedicated to an existing or proposed horizontal spacing unit.

(3) A horizontal spacing unit that does not meet the following criteria for a standard horizontal spacing unit shall be considered a non-standard horizontal spacing unit and must be approved pursuant to the process described in Paragraph (5) of Subsection B of 19.15.16.15 NMAC.

(4) Subject to Paragraph (9) of Subsection B of 19.15.16.15 NMAC, horizontal spacing units can overlap other horizontal spacing units or vertical well spacing units.

B. Well spacing.

(1) **Standard horizontal spacing units for horizontal oil wells.** In lieu of an oil spacing unit described in Subsection A of 19.15.15.9 NMAC, the operator shall dedicate to each horizontal oil well a

standard horizontal spacing unit that meets the following criteria.

(a) The horizontal spacing unit shall comprise one or more contiguous tracts that the horizontal oil well's completed interval penetrates, each of which consists of a governmental quarter-quarter section or equivalent.

(b) In addition to tracts the horizontal oil well penetrates, the operator may include quarter-quarter sections or equivalent tracts in the standard horizontal spacing unit that are located within 330 feet of the proposed horizontal oil well's completed interval (measured along a line perpendicular to the proposed completed interval or its tangent).

(c) If, however, the perimeter of the area that includes all the tracts that the horizontal oil well penetrates encloses an area that is substantially rectangular, then the operator may not bring in additional tracts that would result in a non-rectangular horizontal spacing unit.

(d) The horizontal spacing unit shall contain at least the minimum acreage required by existing or subsequently adopted special pool orders for a spacing unit in any pool where all or part of the horizontal oil well's completed interval is located.

(2) **Exception for pools with larger spacing.** If the horizontal oil well is located entirely or partially in a pool for which existing or subsequently adopted special pool orders prescribe oil spacing units larger than 40 acres, then the horizontal spacing unit may, as an alternative to quarter-quarter sections, comprise one or more tracts of the size and configuration so prescribed, provided that the standard horizontal spacing unit shall include only such tracts that are oriented in the same direction. If a horizontal oil well's completed interval is located within two or more pools for the same formation, and the operator elects to construct a standard horizontal spacing unit utilizing tracts of the size and configuration prescribed by special pool orders, the operator shall use tracts of the maximum tract size prescribed for any of the included pools.

(3) **Standard horizontal spacing units for horizontal gas wells.** In lieu of a gas spacing unit described in 19.15.15.10 NMAC, the operator shall dedicate to each horizontal gas well a standard horizontal spacing unit that meets all the following criteria.

(a) The horizontal spacing unit shall comprise one or more contiguous tracts that the horizontal gas well's completed interval penetrates, each of which consists of a governmental quarter section or equivalent.

(b) In addition to tracts the well penetrates, the operator may include quarter sections or equivalent tracts in the standard horizontal spacing unit that are located within 330 feet of the proposed horizontal gas well's completed interval (measured along a line perpendicular to the proposed completed interval or its tangent).

(c) If, however, the perimeter of the area that includes all the tracts that the horizontal gas well penetrates encloses an area that is substantially rectangular, then the operator may not bring in additional tracts that would result in a non-rectangular horizontal spacing unit.

(d) The horizontal spacing unit shall contain at least the minimum acreage required by 19.15.15.10 NMAC or by existing or subsequently adopted special pool orders for a spacing unit in any pool where all or part of the horizontal gas well's completed interval is located.

(4) **Exception for pools with larger spacing.** If the horizontal gas well is located entirely or partially in an area or pool for which 19.15.15.10 NMAC or existing or subsequently adopted special pool orders prescribe gas spacing units larger than 160 acres, then the horizontal spacing unit may, as an alternative to quarter sections, comprise one or more tracts of the size and configuration so prescribed, provided that the standard horizontal spacing unit shall include only such tracts that are oriented in the same direction. If a horizontal gas well's completed interval is located within two or more pools for the same formation, and the operator elects to construct a standard horizontal spacing unit utilizing tracts of the size and configurations prescribed by 19.15.15.10 NMAC or special pool orders, the operator shall use the maximum tract size prescribed for any of the included pools.

(5) **Non-standard horizontal spacing units.**

(a) **Administrative approval.** The division may approve non-standard horizontal spacing units for horizontal oil or gas wells after notice and opportunity for hearing, if necessary to prevent waste or protect correlative rights, in accordance with the procedures provided for director approval of non-standard spacing units in Paragraphs (3) through (5) of Subsection B of 19.15.15.11 NMAC.

(b) **Notice.** The operator shall give notice of any application for approval of a non-standard horizontal spacing unit, by certified mail, return receipt requested, to affected persons in all tracts that:

(i) are excluded from the horizontal spacing unit, if the horizontal spacing unit would be a standard horizontal spacing unit except for the exclusion of such tracts; or

(ii) adjoin the non-standard horizontal spacing unit, in all other cases.
(c) **Form of notice.** The notice shall comply with Paragraph (4) of Subsection B of 19.15.15.11 NMAC.

(d) Unless otherwise authorized by the division, the operator shall not commence drilling in the proposed non-standard spacing unit until the division issues a final order granting the application.

(6) **State, federal or tribal lands.** If the horizontal spacing unit includes state, federal or tribal minerals, the operator shall send a copy of form C-102 to the applicable affected persons identified in Subparagraphs (d) and (e) of Paragraph (8) of Subsection A of 19.15.2.7 NMAC. No horizontal spacing unit 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 horizontal spacing unit includes state trust lands, without the written consent of the commissioner of public lands.

(7) **Multi-lateral horizontal wells.**

(a) Multiple laterals in the same pool or formation and oriented such that the completed interval of each lateral is located entirely within the boundaries of a horizontal spacing unit for the longest lateral may be dedicated to the same horizontal spacing unit.

(b) Except as provided in Subparagraph (a) of Paragraph (7) of Subsection B of 19.15.16.15 NMAC, the operator of a multi-lateral horizontal well shall dedicate a separate horizontal spacing unit to each lateral.

(c) The division may grant exceptions to the requirements of Subparagraphs (a) and (b) of Paragraph (7) of Subsection B of 19.15.16.15 NMAC pursuant to Paragraph (5) of Subsection B of 19.15.16.15 NMAC.

(8) **Unitized areas.** For a horizontal well the completed interval of which is located wholly within a unitized area or an area with uniform ownership as to the mineral estate in the objective formation, the horizontal spacing unit configuration requirements of Subparagraph (c) of Paragraph (1) and Subparagraph (c) of Paragraph (3) of Subsection B of 19.15.16.15 NMAC do not apply.

(9) **Existing and subsequent wells in horizontal spacing units.**

(a) **Existing wells.** Existing wells in spacing units, horizontal or otherwise, that are wholly or partially included in a new horizontal spacing unit remain dedicated to their existing spacing units and are not part of the new horizontal spacing unit unless otherwise agreed by all working interest owners in the existing and new spacing units. If all owners (and BLM or state land office, if federal or state minerals are included, and the appropriate governmental authority if tribal minerals are included, in the old or new spacing unit) agree to re-dedicate the existing well to the new horizontal spacing unit, the operator shall file an amended form C-102 reflecting the re-dedication, and shall attach a certificate to the effect that all owners have agreed in writing thereto.

(b) **Subsequent wells in existing spacing units.** Subject to the terms of any applicable operating agreement, or to 19.15.13 NMAC or any applicable compulsory pooling order as to any compulsory pooled interests:

(i) a horizontal well that will have a completed interval partially in an existing well's spacing unit, and in the same pool or formation, may be drilled only with the approval of, or, in the absence of approval, after notice to, all operators and working interest owners of record or known to the applicant in the existing and new well's spacing units;

(ii) any subsequent well, horizontal or otherwise, with a completed interval located wholly within an existing well's horizontal spacing unit, and in the same pool or formation, if not designated as an infill horizontal well, may be drilled only with the approval of, or, in the absence of approval, after notice to, all operators and working interest owners of record or known to the applicant in the existing and new well's spacing units; and

(iii) the notice procedures of Subsection B of 19.15.15.12 NMAC shall apply to notices required pursuant to Items (i) or (ii) of Subparagraph (b) of Paragraph (9) of Subsection B of 19.15.16.15 NMAC.

(c) The provisions of 19.15.13.10 NMAC and 19.15.13.11 NMAC shall apply to any proposal to drill an infill horizontal well in a horizontal spacing unit subject to a compulsory pooling order unless the order includes specific provisions for such additional well.

(10) **Pooling of horizontal spacing units.** Whenever the operator of any horizontal well shall dedicate thereto lands comprising a standard or approved non-standard horizontal spacing unit in which there are two or more separately owned parcels of land, or royalty interests or undivided interests in oil or gas minerals which are separately owned, or any combination thereof, that have not been previously pooled for oil and gas production from the horizontal spacing unit, the operator shall obtain voluntary agreements pooling said lands or interests or an

order of the division pooling said lands before producing the horizontal well.

(11) Protests. Without limitation of any other right or remedy, an owner of a tract that adjoins a proposed or existing horizontal spacing unit but is not included therein who contends that a horizontal well in the adjoining horizontal spacing unit is impairing, or will impair, the owner's correlative rights may file a protest 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 adjoining horizontal spacing unit.

C. Setbacks.

(1) Generally. The following setback distances shall apply to each horizontal well.

(a) The distance in the horizontal plane from any point in the completed interval to any outer boundary of the horizontal spacing unit, measured along a line perpendicular to the completed interval or to the tangent thereof, shall be a minimum of 330 feet for an oil well or 660 feet for a gas well.

(b) The first and last take point of a horizontal well shall be no closer than 100 feet for an oil well or 330 feet for a gas well, in the horizontal plane, to any outer boundary of the horizontal spacing unit.

(2) District office to approve. The appropriate division district office may grant a permit for a horizontal well provided every point in the well's completed interval complies with the setback requirements described above or is located at an unorthodox well location the division has approved.

(3) Surface location. A horizontal well's surface location may be located anywhere inside or outside the boundaries of the horizontal spacing unit, provided the completed interval is located at an orthodox, or division-approved unorthodox, well location within the horizontal spacing unit.

(4) Internal setbacks. No internal setbacks are applicable within the horizontal spacing unit.

(5) Unorthodox well locations. The horizontal well's location is considered unorthodox if:

(a) any part of the horizontal well's completed interval is projected to be closer to an outer boundary of the horizontal spacing unit than allowed by Paragraph (1) of Subsection C of 19.15.16.15 NMAC, or other applicable rule or special pool order;

(b) a directional survey shows that the horizontal well's first or last take point, as drilled, is located closer to the outer boundary of the horizontal spacing unit than allowed by Subparagraph (b) of Paragraph (1) of Subsection C of 19.15.16.15 NMAC;

(c) a directional survey shows that any part of the horizontal well's completed interval, as drilled, is more than 50 feet from its projected location and closer to the outer boundary of the horizontal spacing unit than allowed by Subparagraph (a) of Paragraph (1) of Subsection C of 19.15.16.15 NMAC or other applicable rule or special pool order; or

(d) for previously approved unorthodox well locations, if a directional survey shows that any part of the completed interval is located more than 50 feet (or, if less, twenty-five percent of the previously authorized distance) closer to the outer boundary of the horizontal spacing unit than the approved location.

(6) Approval of unorthodox well locations. To obtain approval for the unorthodox well location, the operator shall file an application in the division's Santa Fe office in accordance with the procedures described in Subsections B, C and D of 19.15.15.13 NMAC. For Subparagraph (a) of Paragraph (5) of Subsection C of 19.15.16.15 NMAC, the operator shall obtain approval for the location before drilling the well. For Subparagraphs (b), (c) and (d) of Paragraph (5) of Subsection C of 19.15.16.15 NMAC, the operator shall obtain approval for the as-drilled location before producing the horizontal well.

(7) Unitized areas. For a horizontal well the completed interval of which is located wholly within in a unitized area or an area with uniform ownership as to the mineral estate in the objective formation, the setbacks prescribed in Subsection C of 19.15.16.15 NMAC apply only to the outer boundaries of the unitized area, area of uniform ownership or of any uncommitted tract or partially committed tract, instead of the outer boundaries of the horizontal spacing unit.

D. Allowables.

(1) Oil allowables and gas-oil ratios. Unless the division determines, after notice and hearing, that to prevent waste a reduced allowable must be assigned to a pool, the division shall assign to a horizontal oil well in an oil pool an oil allowable equal to the amount of oil that the horizontal oil well can produce. If any non-marginal proration unit exists in the same pool as a horizontal oil well, the division shall assign to each oil well located in the unit an allowable equal to its productive capacity. Production of gas or oil from any horizontal oil well shall not be limited by a limiting gas-oil ratio as provided in Subsection A of 19.15.20.13 NMAC.

(2) Gas allowables. The division shall assign to a horizontal gas well completed in a

prorated gas pool an allowable equal to the amount of gas the horizontal gas well can produce. If any non-marginal gas proration unit exists in the same pool as a horizontal gas well, the division shall assign a top proration unit allowable for gas to such unit that is equal to the amount of gas than the unit can produce.

(3) **Effective dates.** Paragraphs (1) and (2) of Subsection D of 19.15.16.15 NMAC shall apply to all pools and areas of the state commencing on the first day of the first month after June 26, 2018 but shall cease to apply to any particular pool on the date of any order, hereafter issued following notice and hearing, whereby the division or commission determines that reduced allowables for such pool are necessary to prevent waste.

E. Other matters.

(1) **Directional survey requirements.** The operator of each horizontal well shall run a directional survey and file the directional survey, in a division-approved format, upon the well's completion. Directional surveys shall have shot points no more than 200 feet apart and shall be run by competent surveying companies. The division shall allow exceptions to the minimum shot point spacing provided the survey's accuracy is still within acceptable limits. The division shall not approve a form C-104 for the well until the operator has filed the required directional survey.

(2) **Downhole commingling.**

(a) **Pools or laterals in the same formation.** Provisions of 19.15.12.11 NMAC requiring approval for downhole commingling do not apply to commingling of oil or gas within a single lateral of a horizontal well bore that is produced from adjacent pools within the same formation, or from multiple laterals of a single well bore that are completed in the same pool or formation and dedicated to the same horizontal spacing unit.

(b) **Other multi-lateral wells.** Except as provided in Subparagraph (a) of Paragraph (2) of Subsection E of 19.15.16.15 NMAC, horizontal wells with multiple laterals shall only be produced pursuant to division-approved downhole commingling authority obtained pursuant to 19.15.12.11 NMAC, unless pool segregation is maintained until the fluids reach the wellhead.

(3) **Conflicts with existing rules or special pool orders.** Provisions of statewide rules or special pool orders in effect on February 15, 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 a spacing unit, do not apply to horizontal wells. Provisions of statewide rules or special pool rules in effect on June 26, 2018, save and except the special provisions for the Purple Sage; Wolfcamp (Gas) Pool in ordering paragraphs (1) through (7) of division order R-14262, that conflict with any of any provisions in 19.15.16.15 NMAC do not apply to horizontal wells. Special pool orders or amendments thereto adopted after June 26, 2018 shall prevail over rules as provided in 19.15.2.9 NMAC.

(4) **Transitional provisions.** Any horizontal well drilled, commenced or permitted prior to June 26, 2018 shall retain as its horizontal spacing unit the standard or non-standard spacing unit or project area originally dedicated thereto. If that area is not a standard horizontal spacing unit as provided in Subsection B of 19.15.16.15 NMAC, that area is hereby approved as a non-standard horizontal spacing unit for the horizontal well so drilled, commenced or permitted.
[19.15.16.15 NMAC - Rp, 19.15.3.112 NMAC, 12/1/2008; 19.15.16.15 NMAC - N, 2/15/2012; A, 6/26/2018; A, 11/27/2018]

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 19.15.16.16 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 19.15.16.16 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 19.15.16.16 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, 12/1/2008; 19.15.16.16 NMAC - Rn & A, 19.15.16.15 NMAC, 2/15/2012]

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, 12/1/2008; 19.15.16.17 NMAC - Rn, 19.15.16.16 NMAC, 2/15/2012]

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, 12/1/2008; 19.15.16.18 NMAC - Rn, 19.15.16.17 NMAC, 2/15/2012]

19.15.16.19 LOG, COMPLETION AND WORKOVER REPORTS:

A. Completion report. Within 45 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 19.15.16.19 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. The operator shall signify on form C-105, or alternatively on form C-103, whether the well has been hydraulically fractured.

B. Hydraulic fracture disclosure. For a hydraulically fractured well, the operator shall also complete and file with the FracFocus chemical disclosure registry a completed hydraulic fracturing disclosure within 45 days after completion, recompletion or other hydraulic fracturing treatment of the well. The hydraulic fracturing disclosure shall be completed on a then current edition of the hydraulic fluid product component information form published by FracFocus and shall include complete and correct responses disclosing all information called for by the FracFocus form, provided that:

- (1) the division does not require the reporting of information beyond the material safety data sheet data as described in 29 C.F.R. 1910.1200;
- (2) the division does not require the reporting or disclosure of proprietary, trade secret or confidential business information; and
- (3) the division shall download and archive New Mexico FracFocus submissions on a quarterly basis.

C. If the FracFocus chemical disclosure registry is temporarily inoperable, the operator of a well on which hydraulic fracturing treatment(s) were performed shall file the information required by the then most recent FracFocus form with the division along with Well Completion Report (form C-105) or Sundry Notice (form C-103) reporting the hydraulic fracture treatment and file the information on the FracFocus internet website when the website is again operable. If the FracFocus chemical disclosure registry is discontinued or becomes permanently inoperable, the operator shall continue filing the information with the division until otherwise provided by rule or order.

[19.15.16.19 NMAC - Rp, 19.15.13.1104 NMAC, 12/1/2008; 19.15.16.19 NMAC - Rn & A, 19.15.16.18 NMAC, 2/15/2012; A, 9/26/2017]

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 or 19.15.16.15 NMAC;
- (3) has dedicated a standard spacing unit or horizontal spacing unit for the pool in which the well is completed, a standard spacing unit or horizontal spacing unit has been communitized or pooled and dedicated to the well or the division has approved a non-standard spacing unit or horizontal spacing unit; and
- (4) complies 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, 2/15/2012; A, 6/26/2018]

HISTORY of 19.15.16 NMAC:

History of Repealed Material: 19.15.3 NMAC, Drilling (filed 10/29/2001) and 19.15.13 NMAC, Reports (filed 6/17/2004) repealed 12/1/08.

NMAC History:

Those applicable portions of 19.15.3 NMAC, Drilling (Sections 103, 106 - 113, 115, & 117) (filed 10/29/2001) and 19.15.13 NMAC, Reports (Section 1104) (filed 6/17/2004) were replaced by 19.15.16 NMAC, Drilling and Production, effective 12/1/2008.