# Rules of
# Department of Natural Resources
## Division 50—Oil and Gas Council
## Chapter 3—Well Spacing for Oil and Gas Pools

## Title 10—DEPARTMENT OF NATURAL RESOURCES
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**10 CSR 50-3.010 Spacing Units for Primary Production**

*PURPOSE: Spacing patterns for wells in a pool or reservoir are established by this rule to prevent waste, to avoid the drilling of unnecessary wells, to contribute to orderly development, and to protect correlative rights. Wells should be located in a relatively uniform spacing pattern even under diversified ownership conditions to protect correlative rights along property lines. Optimum spacing is considered to be the maximum number of reservoir acres that can be economically and efficiently drained by one (1) well within a reasonable time. For example, if one (1) well can be drilled economically on ten (10) acres and this is the area that can be drained efficiently, then the spacing or acreage attributable to the well should not be less than ten (10) acres. A well so spaced will ultimately recover as much oil for the ten (10) acres as would be recovered by more than one (1) well, thereby avoiding the drilling of unnecessary wells. This rule provides requirements for, and limitations on, the spacing of wells and for certain exceptions and exemptions thereto.*

(1) All wells for the primary production of oil and gas drilled into the same pool, except as explicitly exempted by this rule, shall be subject to spacing units as follows:

(A) Oil wells. Not more than one (1) oil well shall be drilled upon any tract of land into the same pool as specified in the following:

1. A standard spacing unit shall be ten (10) acres. The well shall not be located closer than three hundred thirty feet (330') to any unit line, nor closer than six hundred sixty feet (660') to the nearest oil well completed in or capable of producing from the same pool. Except as provided in paragraph (1)(A)2., no oil well shall be drilled on less than ten (10) acres except by order of the state geologist; or

2. Due to the low natural reservoir pressure at shallow depths, oil may be drained economically and efficiently through primary production only by using smaller spacing units. A standard spacing unit for an oil well drilled to a total depth of less than one thousand five hundred feet (1500') shall be two and one-half (2.5) acres or three hundred thirty feet (330') from an oil well completed in or producing from the same pool and shall not be drilled nearer than one hundred sixty-five feet (165') from any unit line. No oil well shall be drilled on less than two and one-half (2.5) acres except by order of the state geologist; and

(B) Gas wells. Not more than one (1) gas well shall be drilled upon any tract of land into the same pool as specified in the following:

1. A standard spacing unit shall be a forty (40) acres. The gas well shall not be located closer than six hundred sixty feet (660') to any unit line, nor closer than one thousand three hundred twenty feet (1320') to the nearest gas well completed in or producing from the same pool. Except as provided in paragraph (1)(B)2., no gas well shall be drilled on less than forty (40) acres except by order of the state geologist; or

2. Due to the low natural reservoir pressure at shallow depths, gas may be drained economically and efficiently through primary production only by using smaller spacing units. A standard spacing unit for a gas well drilled to a total depth of less than one thousand five hundred feet (1500') shall be ten (10) acres or six hundred sixty feet (660') from a gas well completed in or producing from the same pool and shall not be drilled nearer than three hundred thirty feet (330') from any unit line. No gas well shall be drilled on less than ten (10) acres except by order of the state geologist.

(C) An operator may petition the state geologist to issue an order to establish spacing units of a specified and approximate uniform size and shape for a pool for the purpose of preventing waste, avoiding the drilling of unnecessary wells, or protecting correlative rights. The state geologist may modify an order establishing spacing units to alter the size and shape of one (1) or more existing spacing units for the purpose of preventing waste, avoiding the drilling of unnecessary wells, or protecting correlative rights.

(2) Only one (1) well that is in physical contact with the pool and capable of producing oil or gas or both is allowed in any given spacing unit.

(A) The state geologist, on an individual basis, may grant the drilling and production of one (1) or more increased density wells within a spacing unit, provided that the operator submits convincing technical evidence that the existing well(s) is not capable of efficiently draining the pool or portion thereof that resides within the confines of the spacing unit.

(B) The surface locations of all wells and all the points at which the wells are in physical contact with the pool shall occur no closer than a specified distance from the vertical boundary of a spacing unit, and this minimum distance is set in section (1) or in any order issued pursuant to subsection (1)(C). The state geologist, on an individual basis, subsequently may issue an order granting a location exception where the surface location of a well, or its contacts with the pool, or both, may be located closer than the specified minimum distance from the boundary of the spacing unit.

(C) Any injection well and any surface or subsurface device that redirects the natural movement of oil, gas, or formation water in a pool is prohibited at any location within spacing units under primary production, and the drainage of oil, gas, and formation water into the well must be allowed to occur naturally. All injection projects or other enhanced recovery of oil or gas must be done in accordance with 10 CSR 50-3.020.

(D) Compressors that lower pressure inside wells for the purpose of increasing the ultimate recovery of gas may be used in spacing units. Compressors shall not induce a vacuum inside wells unless approved by the state geologist.

(3) The following are exempt from the requirements of spacing units:

(A) Offset wells that were drilled prior to the enactment of Chapter 259, RSMo, upon application to the state geologist and to protect against offset drainage;

(B) Any well that is drilled for enhanced recovery as part of the operation of a production unit, in accordance with 10 CSR 50-3.020;

(C) Wells whose purpose is for the disposal of produced water, non-usable gas, or other liquid or gaseous waste resulting from the production of oil, gas, or both;

(D) Stratigraphic test wells;

(E) Wells drilled expressly for operation of underground gas storage projects; and

(F) Non-commercial gas wells, if approved by the state geologist under the following conditions:

1. An operator may apply for the establishment of a spacing unit, consisting of one (1) or more contiguous separately owned tracts, on which a well no deeper than eight hundred feet (800') may be drilled without regard to section lines or property lines, provided that any well so allowed shall not be drilled closer than one hundred sixty-five feet (165') from the boundary of the spacing unit, unless approved by the state geologist;

2. An applicant for an exemption and establishment of a spacing unit under this subsection shall submit a well location map, as described in 10 CSR 50-2.030(3), outlining

the area that will be affected by the proposed well and showing the location of the separate tracts, the names and addresses of landowners of the separate tracts, and the names and addresses of lessees of any tracts leased for oil, gas, or both. All wells, including but not limited to, dry, abandoned, producing, or shut-in wells on the proposed unit, and any well location for which drilling permits have been approved, shall be located accurately and designated on the map; and

3. Spacing exemptions may be granted upon application to the state geologist.

*AUTHORITY: section 259.100, RSMo Supp. 2015, and section 259.120, RSMo 2000.* Original rule filed Sept. 12, 1973, effective Sept. 22, 1973. Amended: Filed Sept. 15, 2015, effective March 30, 2016.*

**Original authority: 259.100, RSMo 1965, amended 1987, 2015 and 259.120, RSMo 1965, amended 1972.*

**10 CSR 50-3.020 Production Units and Well Spacing for Enhanced Recovery**

*PURPOSE: Production units are small- to large-scale projects designed to maximize ultimate recovery of oil and gas from the entirety of a single pool or particular portion thereof through enhanced recovery. Enhanced recovery typically involves the use of injection wells.*

(1) No well, including, but not limited to, those used for production or injection, drilled within a production unit shall be drilled nearer than one hundred sixty-five feet (165') from the production unit boundary. Stratigraphic test wells are exempt from this requirement.

(2) An operator may submit to the state geologist an application for the implementation of a production unit of a specified size and shape, with a well configuration of a certain nature of operation, for the purpose of an enhanced recovery project designed to maximize the ultimate recovery of oil or gas or both from the entirety of a single pool or particular portion thereof. The state geologist may approve the application if the proposed production unit is operated by a single operator or owner. If the proposed production unit includes more than one (1) operator or owner, application shall be made to the council, according to procedures in 10 CSR 50-4.020. Any applicant for a production unit shall provide a description of the proposed production unit area, including the following information:

(A) Maps that show the unit boundary, cultural and natural surface features, areal extent of the pool, depth and thickness of the pool, location of any and all prior wells regardless of kind in the proposed unit area and those that occur within a one-half (1/2) mile-wide buffer area around the proposed unit;

(B) Location of all owner tracts;

(C) Location and pattern of all proposed production, injection, water supply and disposal wells that are to be drilled and operated for purpose of the proposed production unit; and

(D) Location of all surface facilities associated with the proposed production unit.

*AUTHORITY: section 259.100, RSMo Supp. 2015, and section 259.120, RSMo 2000.* Original rule filed Sept. 15, 2015, effective March 30, 2016.*

**Original authority: 259.100, RSMo 1965, amended 1987, 2015 and 259.120, RSMo 1965, amended 1972.*