

## **805 KAR 1:140. Directional and horizontal wells.**

RELATES TO: KRS 349.015, 349.035, 349.040(3), 349.075, 349.120, 349.155, 353.050, 353.060, 353.180, 353.510, 353.520, 353.561 – 353.564, 353.590, 353.5901, 353.592, 353.610, 353.651, 353.652, 353.6601 – 353.6606, 353.730, 353.737, 353.991, Chapter 424

STATUTORY AUTHORITY: KRS 349.115, 353.540, 353.550

NECESSITY, FUNCTION, AND CONFORMITY: KRS 353.540 authorizes the department to promulgate administrative regulations to administer KRS 353.500 through 353.720. KRS 353.550 authorizes the department to regulate the drilling and casing of all wells and filing of all downhole surveys. KRS 349.110 authorizes the department to exercise supervision over the drilling, casing, plugging, and filling of all coalbed methane wells. This administrative regulation establishes the requirements for permitting directional and horizontal wells for the purpose of oil, gas, or coalbed methane extraction.

### Section 1. Information Submittal.

(1) Prior to drilling a directional or horizontal well, the operator shall submit:

(a)

1. A completed Application for Permit, Form OG-1, incorporated by reference in 805 KAR 1:010 for oil or gas well; and
2. A cover letter from the operator making a request for drilling the horizontal or directional well;

(b) Three (3) copies of a location plat in compliance with 805 KAR 1:030 (plan view), in addition to:

1. The surface location and proposed target formation with respective Carter Coordinates;
2. The proposed path of the wellbore; and
3. The identification of the intersection length of the proposed well and the proposed producing formation. To avoid any conflicts with the spacing requirements, a dashed line shall be drawn around the intersection length in feet with regard to the spacing requirements in:
  - a. KRS 353.610 for an oil or gas well;
  - b. KRS 349.075 for a coal bed methane well; or
  - c. 805 KAR 1:100 and KRS 353.651 and 353.652 for deep wells;

(c) A bond as required in KRS 353.590(7) for oil or gas wells or KRS 349.120 for coalbed methane wells; and

(d) An application fee pursuant to the requirements in 805 KAR 1:010.

(2)

(a) In addition to the plan view required in this section, the operator shall submit three (3) copies of a plat that shows a vertical cross-section view of the area to be drilled by the well.

(b) This cross-section shall be prepared from the proposed "predrill hole" directional survey compiled by the contractor responsible for the directional drilling of the proposed wellbore.

(c) The cross-section shall include the area from the well site to the target made through the proposed course of the well.

(d) The surface location shall be designated as zero in reference to the depth and the lateral distance from the well site and true vertical depths shall be shown for:

1. The kick-off point or selected depth at which the deviation is started;
2. The known coal seams to be intersected;
3. The producing interval;
4. The proposed producing formation; and
5. The proposed target.

(3) Upon permit issuance, the operator shall provide verbal or written notice to the department field inspector at least forty-eight (48) hours in advance of the commencement of drilling operations.

(4) Once the well has been drilled and completed, the following shall be submitted within thirty (30) days from the date of completion:

(a) Three (3) copies of an amended plan view of the well location plat as established in subsection (1)(b)1. through 3. of this section, with the actual course drilled, the kick-off point, and the actual target superimposed on the proposed well location plat. A correction in the target Carter Coordinates, if necessary, shall then be issued by the department;

(b) Three (3) copies of the side or cross-sectional view plat as established in subsection (2)(d)1. through 5. of this section, amended for the actual path of the wellbore, showing the actual formation, coal seams, target formations, and kick-off point; and

(c) Copies of all directional surveys certified by the operator and the contractor responsible for the directional survey.

1. This survey shall be submitted for the entire well bore, and the operator shall be able to identify the path or depth of the well bore at any given time during and after the drilling of the directional or horizontal well.

2. The survey points shall be made at a maximum of 200 foot intervals or at any intervals more frequent.

(5) The operator shall comply with spacing requirements for offset mineral boundary lines and between wells for the actual drilled path of the wellbore and its end point and the intersection of the wellbore and the producing formations in accordance with:

(a) KRS 353.610 for oil or gas wells;

(b) KRS 349.075 for coalbed methane wells; or

(c) 805 KAR 1:100 and KRS 353.651 and 353.652 for deep wells.

(6) A coal operator or owner affected by the drilling of a directional or a horizontal well shall be provided a copy of the predrill plat and cross-section plat established in subsections (1)(b) and (2)(b) of this section as required by KRS 353.050 and 353.060 for oil and gas wells or KRS 349.015 for coalbed methane wells. Within ten (10) days after the well is drilled, the operator shall submit to the coal operator or owner the revised plats and deviation survey log as established in subsection (4) of this section.

(7) The requirements for a deep directional or horizontal well shall comply with those requirements established in 805 KAR 1:100 and KRS 353.651 and 353.652 regarding the application process and spacing units. Prior to the deep directional or horizontal well being drilled, a hearing shall be held pursuant to KRS Chapter 13B and 805 KAR 1:100 before the Kentucky Oil and Gas Conservation Commission.

Section 2. If an application for a directional or horizontal permit is submitted to the department, the operator shall prepare a detailed drilling and casing plan on Casing and Cementing Plan, Form OG-7, for the review by and the approval or denial of the department. The items requested in 805 KAR 1:130, Section 3(1), (2), and (3) shall be submitted with this plan.

Section 3. The operator shall install a blow-out preventer with a minimum working pressure of 1,500 psi and a test pressure of 3,000 psi or a minimum working pressure greater than the maximum anticipated surface pressure, whichever is greater.

(1) A description of this device and its installation shall be included with the drilling and casing plan as established in Section 2 of this administrative regulation.

(2) This BOP equipment shall be tested at intervals necessary to maintain its ability to operate at rated capacity. The results of these tests shall be kept at the drill site and made available to department personnel upon request.

Section 4. The requirements of 805 KAR 1:130, Sections 5, 6, and 7 shall also apply to this administrative regulation.

Section 5. An operator noncompliant with the requirements of this administrative regulation shall be subject to penalties pursuant to KRS 353.991 for oil and gas wells or KRS 349.155 for coalbed methane wells.

Section 6. Incorporation by Reference.

(1) "Casing and Cementing Plan", OG-7, June 2019, is incorporated by reference.

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Division of Oil and Gas, 300 Sower Boulevard, Frankfort, Kentucky 40601, Monday through Friday, 8 a.m. to 4:30 p.m., Eastern Prevailing Time.

(18 Ky.R. 236; 1023; eff. 9-25-1991; TAm eff. 8-9-2007; 36 Ky.R. 190; 787; eff. 10-23-2009; eff. 9-4-2015, TAm eff. 7-6-2016; Crt eff. 6-27-2018; 46 Ky.R. 6982, 1506, 2065; eff. 2-3-2020; TAm eff. 4-2-2021.)