# **VIRGINIA**

### I. Administration

Agency regulating oil and gas exploration/production: <u>Department of Mines</u>, <u>Minerals and Energy</u>, <u>Division of Gas and Oil</u>

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Docketing procedure: An informal fact finding hearing (IFFH) to hear an objection to a permit application will be held not less than 20 days or more than 30 days from the original filing of the objection. <a href="Section 45.1-361.35">Section 45.1-361.35</a>.
 Virginia Gas and Oil Act.

Hearing on application for pooling order/drilling units held at next monthly Virginia Gas and Oil Board meeting if application made 30 days in advance. Section 45.1-361.20, Virginia Gas and Oil Act, and Regulation 4 VAC 25-160-30.

- a. Emergency orders: Yes. The Gas and Oil Inspector may issue an emergency order for 30 days. Notice must be given and a hearing held to make emergency orders permanent. <u>Section 45.1-361.27</u>, <u>Virginia Gas and Oil Act.</u>
- Notice: The Gas and Oil Inspector must give notice ten days prior to a hearing on an objection to a permit application. <u>Section 45.1-361.35</u>, <u>Virginia Gas and Oil Act.</u>

Applicants for a hearing before the Board must give notice to all gas, oil, coal or mineral owners on tracts subject to the hearing at least 30 days in advance. <u>Section 45.1-361.19</u>, <u>Virginia Gas and Oil Act</u>, and <u>Regulation 4 VAC 25-160-30</u>.

The Board must publish notice of hearings at least 20 days in advance. Section 45.1-361.19, Virginia Gas and Oil Act.

- 4. Agency regulating air emissions: <u>Virginia Department of Environmental Quality</u> (DEQ).
- Agency regulating water quality: <u>Virginia Department of Environmental</u>
   <u>Quality</u>
   (DEQ).

### II. <u>License</u>

- 1. License required: Companies are not licensed, but must register with the Division of Gas and Oil, and apply for a permit before conducting gas and oil activities §45.1-361.37.
- 2. Conditions of license: Any person registering shall designate the name and address of an agent who shall be the attorney-in-fact of the registrant. The designated agent shall be a resident of the Commonwealth §45.1-361.37.

Registered persons shall notify the division within 30 days of any change in the information included on the registration form filed in accordance with subsection A of this section 4 VAC 25-150-40.

Per <u>4 VAC 25-150-80</u>, persons required in <u>§ 45.1-361.29 of the Code of Virginia</u> to obtain a permit or permit modification shall apply to the division on the forms prescribed by the director. All lands on which gas, oil or geophysical operations are to be conducted shall be included in a permit application.

# III. Bond/Surety

- 1. Purpose of surety: 45.1-361.31 Bonding and financial security required.
- 2. Plugging and restoration: Yes. § 45.1-361.32. Gas and Oil Plugging and Restoration Fund. §45.1-361.40. Orphaned Well Fund; orphaned wells
- Compliance bond required: Yes. <u>Section 45.1-361.31</u>, <u>Virginia Gas and Oil Act</u>.
- Types of surety accepted: Yes. <u>45.1-362.31</u>. Certificate of Deposit (CD's), Cash, Surety Bonds acceptable by the Director.
- Conditions of bond: Bond shall remain in effect to insure compliance with all oil and gas laws and regulations. <u>Section 45.1-361.31</u>, <u>Virginia Gas and Oil</u> Act.

- a. Amount per well: An amount sufficient to plug the well and restore the site, not less than \$10,000 per well plus \$2,000 per acre of disturbed land. Section 45.1-361.31, Virginia Gas and Oil Act.
- Amount of blanket bond: One to 15 wells, \$25,000; 16 to 30 wells, \$50,000; 31 to 50 wells, \$75,000; 51 or more wells, \$100,000.
  Section 45.1-361.31, Virginia Gas and Oil Act.

### IV. <u>Land Leasing Information</u>

1. Leasing method: N/A

2. Notice method: N/A

3. Minimum bidding \$ (per acre): N/A

4. Qualification of the bidder: N/A

5. State statutes: N/A

6. Maximum acres: N/A

7. Royalty rates: N/A

8. Agency in control of leasing: N/A

### V. Setbacks

1. What rules/regulations/policies does your jurisdiction have in regard to well setbacks from private residences and/or other habitable structures for use by humans or animals? What rules/regulations/policies does your jurisdiction have regarding well setbacks from private residences and/or other habitable structures for use by humans or animals?

4 VAC 25-150-520. Setback restrictions.

No permit shall be issued for any well to be drilled closer than 200 feet from any inhabited building unless site conditions as approved by the director warrant the permission of a lesser distance and there exists a lease or agreement between the operator and the owner of the inhabited building.

2. Are there other sources of information on this matter that you could identify?

No gathering pipeline can be permitted or constructed within 100' from any inhabited building or railway unless site conditions as approved by the director warrant the use of a lesser distance and there exists a lease or

agreement between the operator and the owner of the inhabited building or railway. <u>4 VAC25-150-730</u>.

### VI. Spacing

- Spacing requirements: Yes. In the absence of field rules established by the Virginia Gas and Oil Board, statewide spacing, based on minimum distance between wells, is as stated in <u>45.1-361.17</u>. Statewide spacing of wells.
  - a. For oil: not within 1,250 ft. of another well completed in the same pool, and not within 625 ft. of the boundary of acreage supporting the well.
  - b. For gas: not within 2,500 ft. of another well completed in the same pool, and not within 1,250 ft. of the boundary of acreage supporting the well
  - c. For coalbed methane gas wells: not within 1,000 ft. of another coalbed methane gas well, and not within 500 ft. of the boundary of acreage supporting the well.
  - d. For coalbed methane wells located in the gob: not within 500 ft. of another coalbed methane gas well completed in the gob and not within 250 ft. of the boundary of acreage supporting the well. Section 45.1-361.17, Virginia Gas and Oil Act.
- 2. Exceptions: Yes
  - Basis: The Virginia Gas and Oil Board hears unique testimony regarding each application for a location exception and renders a decision based on that testimony.
  - Approval: All exceptions to statewide spacing must be approved by the Board and detailed in an order issued by the Board. <u>Section</u> <u>45.1-361.17</u>, <u>Virginia Gas and Oil Act</u>, and Board <u>Regulation 4 VAC</u> <u>25-160-60</u>.

### VII. Pooling

- 1. Authority to establish voluntary: Yes. <u>Section 45.1-361.18</u>, <u>Virginia Gas and Oil Act</u>.
- 2. Authority to establish compulsory: Yes. By authority of by Virginia Gas and Oil Board. 45.1-361.21 and 45.1-361.22.

#### VIII. Unitization

- Compulsory unitization of all or part of a pool or common source of supply: Upon order of the Virginia Gas and Oil Board <u>Sections 45.1-361.15</u>, <u>45.1-361.20</u> Virginia Gas and Oil Act and <u>Regulation 4 VAC 25-160-50</u>.
- 2. Minimum percentage of voluntary agreement before approval of compulsory unitization:
  - a. Working interest: Optional. 45.1-361.21.
  - b. Royalty interest: 25% interest of the unit on conventional wells and none set for coalbed methane wells.

# IX. <u>Drilling Permit</u>

- 1. Permits required for:
  - a. Drilling a producing or service well: Yes. <u>Section 45.1-361.29</u>, Virginia Gas and Oil Act.
  - b. Seismic drilling: No.
  - c. Recompletion: Yes, if formation to be completed was not identified in the original permit.
  - d. Plugging and abandoning: Yes, unless P&A was addressed in the original permit application.
  - e. Permit Transfers: Yes. 4 VAC 25-150-120.
- 2. Permit fee:
  - a. Drilling: \$600.
  - b. Seismic drilling: N/A
  - c. Recompletion: \$300.
  - d. Plugging and abandoning: \$300.
  - e. Transfers: \$75.
  - f. Orphan well fund: \$200 per permit application.
- Require filing report of work performed: Yes. <u>Section 45.1-361.27</u>, <u>Virginia Gas and Oil Act</u>, and <u>Regulation 4 VAC 25-150-210</u>, <u>4 VAC 25-150-220</u>, <u>4 VAC 25-150-360</u>, <u>4 VAC 25-150-380</u>, <u>4 VAC 25-150-420</u>, <u>4 VAC 25-150-420</u>, as applicable.

4. Sundry notices used: Yes. 48 hours notice to DGO before an operator can begin site construction, drilling, completion/recompletion or plugging a well and fracturing flowbacks. 4 VAC25-150-230.

#### X. <u>Vertical Deviation</u>

- 1. Regulation requirement: Yes
  - a. When is a directional survey necessary: For any well penetrating a mineable coal seam and having an inclination greater than 1° from true vertical at TD. Regulation 4 VAC 25-150-280; when intentionally deviated, when deviated outside of a drilling unit boundary or on an exception location, <u>Regulation 4 VAC 25-160-</u>200.
  - b. Filing of survey required: Yes
  - c. Format of filing: Regulation <u>4 VAC 25-150-360</u>; <u>Regulation 4 VAC 25-160-200</u>.

## XI. Casing and Tubing

- 1. Minimum amount required:
  - a. Surface casing: 300' or 50' below the deepest known groundwater horizon, whichever is deeper. 4 VAC 25-150-530.
  - b. Production casing: Listed in the permit requirements and designed in accordance with appropriate standard practices. <u>4 VAC 25-150-530</u> and 4 VAC 25-150-610.
- 2. Minimum amount of cement required:
  - a. Surface casing: Cement to the surface.
  - b. Production casing: No requirements
  - c. Setting time: Eight hours and a calculated compressive strength of 500 psi before drilling unless the director approves a shorter time. Regulation 4 VAC 25-150-530 and 4 VAC 25-150-610.
- 3. Tubing requirements:
  - a. Oil wells: Listed in the permit application and on the drilling report.
  - b. Gas wells: Listed in the permit application and on the drilling report.

#### XII. Hydraulic Fracturing

#### 1. Permitting:

- a. Before drilling: Zones to be completed are shown in the permit. application.
- b. Before fracing: Notice.
- c. How long before: 48 hours notice required. 4 VAC 25-150-230.

### 2. Reporting requirements:

- a. Where reported: Reported to DGO. Completion information is contained in the completion report. <u>4 VAC 25-150-360</u>.
- b. When reported: 90 days after the well is completed. <u>4 VAC 25-150-360</u>.
- 3. Source water requirements: None for completions. Required for drilling.
- 4. Mechanical integrity: No.
  - a. Cementing log required: When using multiple coal protection strings, each string must be cemented at least 50' into the next higher string that is cemented to the surface and be verified by a cement top log. 4 VAC 25-150-530.
  - b. Pressure testing: No.
  - c. Pressure monitoring: No.
  - d. Blowout preventer required: Yes. 4 VAC 25-150-320.
- 5. Disposal of flowback fluids
  - a. Retaining pits: Yes. 4 VAC 25-150-420.
  - b. Tanks: Yes. <u>4 VAC 25-150-420</u>.
  - c. Approved discharge to surface water: No.
  - d. Underground injection: Yes. 4 VAC 25-150-420.
- 6. Chemical disclosure requirement:
  - a. Mandatory: Yes
  - b. Where disclosed: Frac focus and in the permitting process
  - c. When disclosed (pre-fracing, post-fracing,):( both):

- d. Time limit to disclose:(See c. above)
- e. Information required to be disclosed: yes
- f. Trade secret protection: No Trade secret protection in Virginia.
- g. Required disclosure to health/emergency personnel: Yes, if utilized and is requested

# XIII. <u>Underground Injection</u>

1. Agencies that control the underground injection of fluid by well class: EPA for class II injection wells.

#### XIV. Completion

- 1. Completion report required: Yes
  - a. Time limit: 90 days from completion. 4 VAC 25-150-360.
  - b. Where submitted: Virginia Division of Gas and Oil.
- 2. Well logs required to be filed: Yes.
  - a. Time limit: 90 days from TD. <u>4 VAC 25-150-360</u>.
  - b. Where submitted: Virginia Division of Gas and Oil
  - c. Confidential time period: 90 days from completion or 18 months after TD whichever comes first. Upon request, the director can hold the logs for an exploratory well for a period of two years from TD or four years from TD. 45.1-361.6.
  - d. Available for public use: Yes, can be downloaded via the <u>Division of Gas and Oil Data Information System</u>.
  - e. Log catalog available: Yes.
- 3. Multiple completion regulation: No.
  - a. Approval obtained: N/A
- 4. Commingling in well bore: Yes.
  - a. Approval obtained: When different mineral owners are involved.

#### XV. Oil Production

- 1. Definition of an oil well: Yes. Any well that produces or appears capable of producing a ratio of less than 6,000 cubic feet of gas to each barrel of oil on the basis of initial gas-oil ratio test. Regulation 4 VAC 25-150-10.
- 2. Potential tests required: Yes <u>4 VAC 25-160-200</u>. If a gas or oil well appears capable of producing gas or oil, the permittee shall conduct a potential flow test and a gas/oil ratio test within 14 days after the well is completed and capable of producing gas or oil.
  - a. Time interval: Yes. 14 days after well is completed and capable of producing oil or gas.
  - b. Witness required: No.
- 3. Maximum gas-oil ratio: 6 mcf to a barrel of oil.
  - a. Provision for limiting gas-oil ratio: No.
  - b. Exception to limiting gas-oil ratio: No.
- 4. Bottom-hole pressure test reports required: No.
  - a. Periodical bottom-hole pressure surveys: No.
- 5. Commingling oil in common facilities: Yes.
- Measurement involving meters: In no case shall meters be the sole means to measure oil unless such metering is conducted in accordance with a method approved by the director such as the API Manual of Petroleum Measurement Standards, 1981, Chapter 6.1, LACT Systems. <u>4 VAC 25-150-400</u>.
- 7. Production reports: Yes.
  - a. By lease: No.
  - b. By well: Yes.
  - c. Time limit: 90 days from the end of each month. Annual report due by March 31st of the next year. <u>Section 45.1-361.38</u>, <u>Virginia Gas and Oil Act</u>, and <u>Regulation 4 VAC 25-150-210</u> and <u>4 VAC 25-150-220</u>.

#### XVI. Gas Production

1. Definition of a gas well: Any well which produces or appears capable of producing a ratio of 6000 cubic feet (6 mcf) of gas or more to each barrel of oil on the basis of a gas-oil ratio test. Regulation 4 VAC 25-150-10.

- 2. Pressure base 14.73 psia @ 60 degrees F.
- 3. Initial potential tests: Yes. 4 VAC 25-160-200. Same as oil wells except for coalbed methane wells. If a permittee cannot test the potential flow of a coalbed methane gas well by a back-flow method or complete the test within the required time period, the permittee may request approval from the director to perform a coalbed methane gas production test. Such a test shall only be made when the water production and the gas flow rates are stabilized for a period of not less than 14 days prior to the test. The test shall be conducted for a minimum of 24 hours in the manner approved by the director.
  - a. Time interval: Same as oil.
  - b. Witness required: No.
- 4. Bottom-hole pressure test reports required: No.
  - a. Periodical bottom-hole pressure surveys: No.
- 5. Commingling of gas in common facilities: No.
- 6. Measurement involving meters: Yes. 4 VAC 25-150-400.
- 7. Production reports: Yes.
  - a. By lease: No.
  - b. By well: Yes.
  - c. Time limits: 90 days from the end of each month. Annual report due by March31st of the next year. <u>Section 45.1-361.38</u>, <u>Virginia Gas and Oil Act</u>, and <u>Regulation 4 VAC 25-150-210</u> and <u>4 VAC 25-150-220</u>.