# **TENNESSEE**

#### I. Administration

- Agency regulating oil and gas exploration/production: <u>TDEC-Division of Water Resources</u>; <u>Tennessee Oil and Gas Program</u>, 711 RS Gass Blvd, Nashville, TN 37216.
- 2. Contact for regulatory updates: Supervisor; Bryan Epperson, Action Supervisor, Phone: (865) 594-5529; Cell: (865) 308-3699.
- Docketing procedure: Upon request of a concerned party or as called by the Division of Water Resources/Board of Water Quality, Oil and Gas. <u>TCA 60-1-204</u>; 0400-51-01 – 0400-58-01 of Rules of the Oil and Gas Program.
  - a. Emergency orders: Can be issued by order of the Oil and Gas Board. TCA 60-1-204(c).
  - b. Notice: Ten (10) days notice. By the State Oil and Gas Program Supervisor.
- 4. Agency regulating air emissions: <u>Division of Air Pollution Control; TDEC.</u>
- 5. Agency regulating water quality: Division of Water Resources; TDEC

# II. <u>License</u>

- 1. License required: No.
- 2. Conditions of license: No.

### III. Bond/Surety

- 1. Purpose of surety: For the State to plug and reclaim well sites when any operator has failed to comply with the regulations.
- 2. Plugging and restoration: Compliance with laws and Rules and Regulations - filing with the Supervisor all records required by the Board plugging of well (or wells) in accordance with the law and Rules and Regulations. Reclamation - Separate reclamation bond for restoration of well site and access roads with minimum established ground cover of at least 90 percent after plantings have survived two growing seasons. <a href="Odd-0400-52-01">Odd-0400-52-01</a> of Rules and Regulations.
- Compliance bond required: Yes; may be in the form of cash, a certified check, corporate surety, irrevocable standby letter of credit or joint custody certificate of deposit. <u>0400-52-01 of Rules and Regulations.</u>

- 4. Types of surety accepted: Letter of Credit, Surety Bond, Cash, Certificate of Deposit.
- 5. Conditions of bond:
  - a. Amount per well: \$2000 for plugging from 0 2500; \$3000 for 2501'- 5000'; \$1.00 per foot for any well drilled deeper than 5000'.
  - b. Amount of blanket bond: \$20,000 for 10 wells drilled from 0 5000'; \$30,000 for 10 wells from 5001' 10,000'; No blanket bonds for wells deeper than 10,000'.

# IV. Land Leasing Information

- 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: <u>60-1-202(a)(3)</u>; the Board has the authority to check leases.
- Maximum acres: N/A
- 7. Royalty rates: N/A
- 8. Agency in control of leasing: N/A

### V. <u>Setbacks</u>

- 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? 200 feet from a dwelling; Safety <u>0400-53-030.01(9)</u>.
- 2. Are there other sources of information on this matter that you could identify? N/A

# VI. Spacing

#### 1. Spacing requirements:

### a. Density:

Oil wells - 0-1,000 feet, 10 acres; 1,001-2,000 feet or to the base of the Devonian Chattanooga Shale, whichever is deeper, 20 acres; more than 2,000 feet or below the base of the Devonian Chattanooga Shale, whichever is deeper, 40 acres. No density requirement for horizontal wells.

Gas Wells - 0-1,000 feet, 10 acres; 1,001-2,000 feet or to the base of the Devonian Chattanooga Shale, whichever is deeper; 20 acres; more than 2,000 feet deep or below the base of the Devonian Chattanooga Shale, whichever is deeper - 5,000 feet or to the top of the Cambrian Conasauga Group, whichever is deeper, 40 acres; more than 5,000 feet deep or below the top of the Cambrian Conasauga Group, whichever is deeper, 160 acres. No density requirement for horizontal wells.

#### b. Lineal:

Oil wells - 330 feet or more from any property (lease) or unit line, and 660 feet or more from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool. No specific well-to-well distance requirement for horizontal wells.

Gas wells - 0-5,000 feet or to the top of the Cambrian Conasauga Group, whichever is deeper, 330 feet or more from any property (lease) or unit line, and 660 feet or more from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool; more than 5,000 feet deep or below the top of the Cambrian Conasauga Group, whichever is deeper, 660 feet or more from any property (lease) or unit line, and 1,320 feet or more from any other well completed in, drilling to, or which a permit shall have been granted to drill to the same pool. No specific well-to-well distance requirement for horizontal wells

#### 2. Exceptions:

- a. Basis: Yes.
- b. Approval: Administratively by Supervisor, <u>0400-52-4-.01(k)</u>, or by Oil and Gas Board after public hearing. <u>0400-52-4-.01(k6)</u>. Existing wells may be deepened and produced for oil or gas from whatever zone(s) production may be obtained on the existing permitted unit size. Spacing of oil and gas wells Referendum TCA 60-1-106. Oil

or gas wells in Overton County: 0-2, 500 feet, 200 feet or more from any property line, and 400 feet or more from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool. Oil and gas wells in Clay and Pickett Counties: 200 feet or more from any property line, and 400 feet or more from any other well completed in, drilling to, or for which a permit shall have been granted to drill to the same pool.

# VII. Pooling

- 1. Authority to establish voluntary: Yes; <u>TCA 60-1-202</u>; <u>0400-52-2-.02(8) of</u> Rules and Regulations.
- 2. Authority to establish compulsory: Yes; TCA 60-1-202(4)(M).

# VIII. Unitization

- 1. Compulsory unitization of all or part of a pool or common source of supply: Yes; <u>0400-55-01-.01</u>.
- 2. Minimum percentage of voluntary agreement before approval of compulsory unitization:
  - a. Working interest: Board Approval.
  - b. Royalty interest: Board Approval.

# IX. Drilling Permit

- 1. Permits required for:
  - a. Drilling a producing or service well: Yes.
  - b. Seismic drilling: No.
  - c. Recompletion: No.
  - d. Plugging and abandoning:

#### 2. Permit fee:

- a. Drilling: \$500.
- b. Seismic drilling: None.
- c. Recompletion: None.
- d. Plugging and abandoning: None.

- e. Change of Operator Fee: \$100.
- f. Amendment Well Fee: \$100.
- 3. Require filing report of work performed: Well history and recompletion information.
- 4. Sundry notices used: 30 day notice in three major newspapers located in the state and website filing.

### X. Vertical Deviation

- 1. Regulation requirement:
  - a. When is a directional survey necessary: At the initiative of the Supervisor or by the request of the offset operator.
  - b. Filing of survey required: When well bore deviates laterally greater than 5 degrees from vertical.0400-52-8-.01(a).
  - c. Format of filing: <u>0400-52-10-.01(a)</u>.

# XI. Casing and Tubing

- 1. Minimum amount required:
  - a. Surface casing: Yes, not less than 100 feet below all fresh water strata encountered in the well. 0400-52-7-.02.
  - b. Production casing: Yes; set by 0400-52-7-.04.
- 2. Minimum amount of cement required:
  - a. Surface casing: Yes, circulate to fill annular space to the surface. 0400-52-7-.02.
  - b. Production casing: Yes; set by 0400-52-07-.04.
  - c. Setting time: No.
- 3. Tubing requirements:
  - a. Oil wells: Yes, if flowing, unless otherwise allowed by the supervisor upon application.
  - b. Gas wells: Yes.

# XII. Hydraulic Fracturing

### 1. Permitting:

- a. Before drilling: Water based fracking with a cumulative total > 200,000 gallons: permit application must be placed on 30-day public notice for public comment; water well sampling of all water wells within a ½ mile radius of the wellhead.
- b. Before fracking: Same as before drilling.
- c. How long before: 24-hour notice to Supervisor before facking.

### 2. Reporting requirements:

- a. Where reported: Tennessee Oil and Gas Program for any water based frac less than 200,000 gallons; Tennessee Oil and Gas Program and a nationally recognized registry greater than 200,000 gallon water based frack.
- b. When reported: Water based frac less than 200,000 gallon is 60 days on Well history/ Well completion from; Water based frack greater than 200,000 gallons, within 60 days to the Tennessee Oil and Gas Program, 120 days to a nationally recognized registry.
- 3. Source water requirements: An Aquatic Resources Alteration Permit (ARAP) Permit from the Division of Water Resources Division for a water based frack greater than 200,000 gallons.
- 4. Mechanical integrity: Upon request of the Supervisor and for shut-in wells older than 15 years.
  - a. Cementing log required: By Underground Injection Control (UIC) Rules.
  - b. Pressure testing: By UIC Rules.
  - c. Pressure monitoring: By UIC Rules.
  - d. Blowout preventer required: Yes.

### 5. Disposal of flowback fluids:

- a. Retaining pits: Yes.
- b. Tanks: Yes.
- c. Approved discharge to surface water: NPDES Permit through Division of Water Resources.

- d. Underground injection: UIC Program; EPA has primacy.
- 6. Chemical disclosure requirement:
  - a. Mandatory: <u>0400-53-01-.03</u> Report Filing.
  - b. Where disclosed: To the Tennessee Oil and Gas Program and a chemical disclosure registry.
  - c. When disclosed (pre-fracing, post-fracing, both): Post-f racing.
  - d. Time limit to disclose: Vendor to operator 30 to 90 days; Operator to Tennessee Oil and Gas Program and chemical disclosure registry 90 to 120 days.
  - e. Information required to be disclosed: 1. Operator Name; 2. The date of hydraulic fracture; 3. the county; 4. API number; 5. Well name and number; 6. Lat and long; 7. True vertical depth of well; 8. Told volume of water used or told volume of based fluid if something other than water; 9. Hydraulic additive, trade name, brief descriptor of function of additive; 10. Chemical intentionally added to the base fluid; 11. The maximum concentration, in percent by mass, of each chemical intentionally added to the fluid; 12. The chemical abstract service number for each chemical intentionally added to the base fluid, if applicable.
  - f. Trade secret protection: Vendors, service companies, and operators are not required to disclose trade secrets to the chemical disclosure registry or in the Well History Report.
  - g. Required disclosure to health/emergency personnel: (1) if information is needed for purposes of diagnosis or treatment of an individual, (2) the individual being treated may have been exposed to the chemical concerned, (3) knowledge of the information will assist in such treatment.

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

1. Agencies that control the underground injection of fluid by well class: Division of Water Supply UIC Program; EPA has Primacy.

# XIV. Completion

- 1. Completion report required:
  - a. Time limit: Yes. 0400-52-10-.02(b).

- b. Where submitted: Supervisor, State Oil and Gas Program. <u>0400-52-10-.01 of Rules and Regulations.</u>
- 2. Well logs required to be filed:
  - a. Time limit: Yes, if run. 60 days <u>0400-52-10-.02(a)</u>.
  - b. Where submitted: Supervisor, State Oil and Gas Board Office. 0400-52-10-.01 of Rules and Regulations.
  - c. Confidential time period: 6 months.
  - d. Available for public use: Yes.
  - e. Log catalog available: No.
- 3. Multiple completion regulation: Yes 0400-53-1-.07.
  - a. Approval obtained: By application for multiple completion to Supervisor. 0400-53-1-.07(1).
- 4. Commingling in well bore: Yes.
  - a. Approval obtained: By order of Oil and Gas Board after public hearing. <u>0400-56-1-.01.</u>

### XV. Oil Production

- Definition of an oil well: None.
- 2. Potential tests required: Yes. 0400-53-1-.04(1) of Rules and Regulations
  - a. Time interval: When requested by the Supervisor.
  - b. Witness required: Yes.
- 3. Maximum gas-oil ratio:
  - a. Provision for limiting gas-oil ratio: Yes. 2,000:1. 0400-54-7-.01.
  - b. Exception to limiting gas-oil ratio: Yes. Not specifically stated in Rules and Regulations.
- 4. Bottom-hole pressure test reports required: Yes, upon request by Supervisor. <u>0400-53-1-.07.</u>
  - a. Periodical bottom-hole pressure surveys: No.

- 5. Commingling oil in common facilities: Yes. (1) Submission of diagram of installation; (2) Producer certifies accurate measurement and method will not create inequities; (3) List of all affected parties. <a href="https://doi.org/10.2016/j.com/no.2016/j
- 6. Measurement involving meters: No.
- 7. Production reports: Yes.
  - a. By lease: Yes <u>0400-54-3-.05.</u>
  - b. By well: Yes.
  - c. Time limit: By the 15<sup>th</sup> Day of April every year.

# XVI. Gas Production

- 1. Definition of a gas well:
- 2. Pressure base 14.73 psia @ 60 degrees F.
- 3. Initial potential tests: Yes. 1040-3-1-.04(1).
  - a. Time interval: 15 days after completion.
  - b. Witness required: Yes.
- 4. Bottom-hole pressure test reports required: Yes, upon request by the Supervisor.
  - a. Periodical bottom-hole pressure surveys: No.
- 5. Commingling of gas in common facilities: Yes. Same requirements as for oil production. <u>0400-54-5-.01</u>.
- 6. Measurement involving meters: No, except for testing.
- 7. Production reports: <u>0400-54-3-.11</u>
  - a. By lease: Yes.
  - b. By well: No.
  - c. Time limits: 25<sup>th</sup> day of succeeding month.