

PENNSYLVANIA

Administration

(NOTE: Oil and gas activities in Pennsylvania are regulated under several statutes and regulations, including but not limited to the following: [Title 58 of the Pennsylvania Consolidated Statutes, 58 Pa.C.S. §§ 2301-3504 \(Act 13\)](#), ; the [Coal and Gas Resource Coordination Act, Act of December 18, 1984, No. 214, 58 P.S. §§501-518 \(RCA\)](#); and the [Oil and Gas Conservation Law, Act of July 25, 1961, P.L. 825, 58 P.S. §401-407 \(OGCL\)](#)).

Regulations promulgated under these statutes are found at Title 25 PA Code Chapters 78 & 79.

1. Official name of agency regulating oil/gas exploration & production: [Pennsylvania Department of Environmental Protection, Office of Oil and Gas Management](#), P. O. Box 8765, Harrisburg, PA 17105-8765. Phone (717) 772-2199.

Southwest District Office: 400 Waterfront Drive, Pittsburgh, PA 15222-4745.
Phone (412) 442-4015.

Northwest District Office: 230 Chestnut Street, Meadville, PA 16335. Phone (814) 332-6860.

Northcentral District Office: 208 West Third Street, Williamsport, PA 17701-6448.

2. Contact for regulatory updates: Elizabeth A. Nolan, Assistant Counsel
Department of Environmental Protection, Bureau of Regulatory Counsel
Rachel Carson State Office Building 400 Market Street Harrisburg, PA 17101
Phone: 717.783.7468 Fax: 717.783.7911
3. Docketing procedure: Act 13: For well permits issued under [58 Pa.C.S. § 3211\(a\)](#), certain parties (surface landowners and coal operators) may file objections. [58 Pa.C.S. § 3212](#). . Any person having a direct interest in any matter subject to [58 Pa.C.S. §§ 3201-3274](#), may request that a conference be held. [58 Pa.C.S. § 2351](#). The parties may appeal final actions of the Department to the Environmental Hearing Board. RCA: For a proposed gas well located above an active coal mine, the owner of the coal mine may file objections and any differences between the operator and coal owner must be submitted to a panel. which makes recommendations to the Department. Section 12. Final actions may be appealed to the Environmental Hearing Board. OGCL: For applications for a well spacing or drilling unit, the Department must hold a public hearing.
 - a. Emergency orders:Act 13: Yes. Emergency action can be taken by the Department without a prior hearing if authorized by the secretary of

designee. Final actions are appealable to the Environmental Hearing Board. [58 Pa.C.S. § 3253\(d\)](#)

- b. Notice: Act 13: Well permit applicants must provide notice of the proposed well location to (1) the surface landowner, (2) the municipality in which the tract of land upon which the well to be drilled is located, (3) each municipality within 3,000 feet of the proposed unconventional well bore, (4) the municipalities adjacent to the well, (5) all surface landowners and water purveyors whose water supplies are within 1,000 of the proposed well or, in the case of an unconventional well, within 3,000 feet of the proposed unconventional vertical well bore, (6) storage operators within 3,000 of the proposed unconventional vertical well bore, (7) the owner or leasee of any coal seams, and (8) each coal operator required to be identified on the plat. [58 Pa.C.S. § 3211\(b\)\(2\)](#). Well permit applicants must submit proof of notification with the well permit application. [58 Pa.C.S. § 3211\(b.1\)](#). Operators must give the Department 24 hours' notice prior to the commencement of drilling of a well. This notification must be provided electronically. [58 Pa.C.S. § 3211\(f\)\(1\)](#). Additionally, operators must provide 24 hours' notice prior to cementing all casing strings, conducting pressure tests of the production casing, stimulation and abandoning or plugging an unconventional well. [58 Pa.C.S. § 3211\(2\)](#). Operators of unconventional wells must provide notice to the landowner or water purveyor of water supplies indicating that the presumption of liability for contaminated water supplies established under [58 Pa.C.S. § 3218\(c\)](#) may be void if the landowner or water purveyor refused to allow the operator access to conduct a predrilling or prealteration survey. [58 Pa.C.S. § 3218\(e.1\)](#). Prior to suspending or revoking a well permit based on an operator's non-compliance, the Department must give the operator written notice. [58 Pa.C.S. § 3253\(c\)](#).

[OGCL](#): Notice of spacing and integration orders must be provided in accordance with Sections 7, 8, and 10 of the Act.

[RCA](#): Notice is issued by the Department in regard to conflicting permit applications (Section 6), objections to drilling (Section 12), and by the well operator in regard to plugging (Section 13).

4. Agency regulating air emissions: [PADEP](#)
5. Agency regulating water quality: [PADEP](#)

License

1. License required: N/A for well drilling
2. Conditions of license: N/A

Bond/Surety

1. Purpose of surety: Bonding requirements are provided in [58 Pa.C.S. § 3225](#). This section outlines required bonding amounts based on an operators' number of wells and total well bore length.
2. Plugging and restoration: Each oil and gas well owner or operator shall restore the land surface within the area disturbed in siting, drilling, completing and producing the well. See [58 Pa.C.S. § 3216](#). Upon abandoning a well, the owner or operator shall plug it in the manner prescribed in regulations of the department to stop vertical flow of fluids or gas within the well bore. See [58 Pa.C.S. § 3220](#).
3. Compliance bond required: For unconventional wells, the bond amounts depends on the operator's number of operating wells and the total well bore length of those wells. [58 Pa.C.S. § 3225](#). For example, an operator operating more than 150 wells with a total well bore length of at least 6,000 feet must submit a bond for \$600,000. [58 Pa.C.S. § 3225\(1\)\(i\)\(D\)](#). For conventional wells drilled after April 18, 1985, operators must submit a bond in the amount of \$2,500 per well, or a blanket bond of \$25,000 for all wells. 72 P.S. § 1606-E.
4. Types of surety accepted: See [58 Pa.C.S. § 3225](#).
5. Conditions of bond: Conditioned on the operator's faithful performance of the drilling, restoration, water supply replacement, and plugging requirements of [58 Pa.C.S. 3201-3274](#).
 - a. Amount per well: N/A
 - b. Amount of blanket bond: N/A

Land Leasing Information

1. Leasing method: Department of Conservation and Natural Resources receives nominations for lease sale on an open basis. Once critical mass is achieved from the continuous nominations process a competitive lease sale may be held, typically utilizing sealed bids. Leases are usually offered and awarded on highest bonus bid, but there are also royalty type sales called for from time to time.
2. Notice method: Advertisement and mailing to all interested parties as well as to the parties on their prospective bidder list for notification.
3. Minimum bidding \$ (10.00 per acre): Annual Rentals at \$5.00 per acre.
4. Qualification of the bidder: Any person - corporation must be registered to do business within Pennsylvania and be in good standing with the Department of State's Corporation Bureau to participate in the bid process.
5. State statutes: Act # 1995-18

6. Maximum acres: Variable, but average size of lease tracts has historically been around 2,000 acres per lease tract.
7. Royalty rates: N/A
8. Agency in control of leasing: [Department of Conservation & Natural Resources](#)

Teddy W. Borawski, Jr.
Phone: (717) 772-0269

NOTE: Lease sales held on a variable schedule depending on the number of nominations and the general industry interest level. On average, lease sales have occurred approximately once a year, but less frequently in the last five years.

Setbacks

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

Spacing

1. Spacing requirements: Act 13: None. [58 Pa.C.S. § 3215](#) contains well location restrictions, including a setback from certain water wells, structure, and water bodies. [RCA](#):: Gas wells which penetrate a workable coal seam, except those permitted under the OGCL penetrating the Onondaga formation, must be at least 1,000 feet from any other well. “No permit for a gas well covered by this act which is intended to be part of a well cluster shall be issued unless the well cluster is located not less than 2,000 feet from the nearest well cluster as measured from the center of the well bore of the nearest well . . .” Section 7. Well cluster is defined as an area within a well pad intended to host multiple [OGCL](#): An operator may apply for a spacing order pursuant to Section 7 of the Act. A conservation well must be at least 330 feet from the boundary of the tract or unit.
 - a. Density: N/A
 - b. Lineal: N/A
2. Exceptions: [RCA](#): Yes.
 - a. Basis: Written consent between the well permit applicant and the owner of the workable coal seam.

- b. Approval: By the Department of Environmental Protection.
3. Exceptions: [OGCL](#): Yes, if the well would not be likely to produce in paying quantities, if there are adverse surface conditions, or if coal operators have objected and a well is prohibited in a certain area. Section 7.
 - a. Approval: By the Department of Environmental Protection.

Pooling

1. Authority to establish voluntary: Yes.
2. Authority to establish compulsory: Yes. [OGCL](#), Section 8 for conservation wells.

Unitization

1. Compulsory unitization of all or part of a pool or common source of supply: Yes, for certain wells outlines in the [OGCL](#), upon application for an integration order by an operator having an interest in the spacing unit.
2. Minimum percentage of voluntary agreement before approval of compulsory unitization:
 - a. Working interest: No provision.
 - b. Royalty interest: No provision.

Drilling Permit

1. Require permits for:
 - a. Drilling a producing or service well: Yes. [58 Pa.C.S. § 3211\(a\)](#).
 - b. Seismic drilling: No.
 - c. Recompletion: Yes, a new permit is required if it constitutes redrilling, alteration, deepening or drilling.
 - d. Plugging and abandoning: Act 13: Well operator or owner must notify Department and coal operator, lessee or owner of his intent to plug and abandon a well. [58 Pa.C.S. § 3220](#). [RCA](#): Any person may apply for authorization to clean out, plug or replug a nonproducing well. Section 13.
2. Permit fee:

- a. Drilling: The permit application fee is based on a schedule and determined by the type of well (vertical, nonvertical or Marcellus) and total well bore length. [25 Pa.Code § 78.19.](#)
 - b. Seismic drilling: None.
 - c. Recompletion: If it constitutes redrilling, alteration, deepening or drilling, a permit application fee is required.
 - d. Plugging and abandoning: None.
 - e. Registration: \$15 per well, or \$250 for blanket registration of wells that are submitted simultaneously.
3. Require filing report of work performed:
- a. Annual production report for conventional wells. Semiannual reports for unconventional wells. [58 Pa.C.S. § 3222.](#)
 - b. Records of drilling or altering a well within 30 days of cessation of drilling. [58 Pa.C.S. § 3222\(b\)\(2\)](#)
 - c. Completion report within 30 days. [58 Pa.C.S. § 3222\(b\)\(3\).](#)
 - d. I Upon request of the department, the well operator shall, within 90 days of completion or recompletion of drilling, submit a copy of any electrical, radioactive or other standard industry logs that have been run. Upon request of the department, the operator shall file a copy of drill stem test charts, formation water analysis, porosity, permability or fluid saturation measurements, core analysis and lithologic log information or sample description or other similar data as compiled.
 - e. Well operator must submit certificate of plugging. OGA, Section 210; [RCA, Section 13](#), and [25 Pa. Code §79.17](#), promulgated pursuant to the [OGCL](#).
4. Sundry notices used: N/A

Vertical Deviation

1. Regulation requirement:
- a. When is a directional survey necessary: Act 13: [58 Pa.C.S. § 3211](#) requires the well operator to designate the proposed angle and direction of the well, if the well is to be deviated substantially from a vertical course. This information must be stated on the plat submitted with the permit application. OGCL: A complete angular deviation and directional survey must be submitted upon completion of an intentionally deviated well. [25 Pa. Code §79.16.](#)

- b. Filing of survey required: OGA: Information on the angle and direction of well, as described above, is required to be filed with the permit application. OGCL: Yes.
- c. Format of filing: [58 Pa.C.S. § 3211](#) requires the well operator to designate the proposed angle and direction of the well, if the well is to be deviated substantially from a vertical course. This information must be stated on the plat submitted with the permit application. OGCL: A complete angular deviation and directional survey must be submitted upon completion of an intentionally deviated well. [25 Pa. Code §79.16.](#)

Casing and Tubing

1. Minimum amount required:

- a. Surface casing: [58 Pa.C.S.](#) provides: “To prevent migration of gas or fluids into sources of fresh groundwater and pollution or diminution of fresh groundwater, a string or strings of casing shall be and permanently cemented in each well drilled through the fresh water-bearing strata to a depth and manner prescribed by regulation by the department.” [25 Pa.Code § 78.83\(c\)](#) provides: “The operator shall drill to approximately 50 feet below the deepest fresh groundwater or at least 50 feet into consolidated rock, whichever is deeper, and immediately set and permanently cement a string of surface casing to that depth. Except as provided in subsection (f), the surface casing may not be set more than 200 feet below the deepest fresh groundwater except if necessary to set the casing in consolidated rock. The surface hole shall be drilled using air, freshwater, or freshwater-based drilling fluid. Prior to cementing, the wellbore shall be conditioned to ensure an adequate cement bond between the casing and the formation. The surface casing seat shall be set in consolidated rock. When drilling a new well or redrilling an existing well, the operator shall install at least one centralizer within 50 feet of the casing seat and then install a centralizer in intervals no greater than every 150 feet above the first centralizer”.
- b. Through coal seams: Wells must be cased to prevent the migration of gas or fluids into a seam from which coal has been removed. Where the coal seam has not been removed, the well must be drilled to such a depth and size to permit the placing of casing in the well, so that all gas or fluids will be excluded from the coal seam. [58 Pa.C.S. § 3217.](#) Casing and cementing requirements defined by 25 Pa. Code §§78.71-86, promulgated pursuant to [58 Pa.C.S. §§ 3201-3274.](#)
- c. Production casing: Production casing requirements are provided in [25 Pa. Code §§ 78.71-87.](#)

2. Minimum amount of cement required:

- a. Surface casing: Well construction and design requirements are provided in [25 Pa. Code §§ 78.71-87.](#)
 - b. Production casing: Well construction and design requirements are provided in [25 Pa. Code §§ 78.71-87.](#)
 - c. Setting time: These requirements are provided in [25 Pa. Code § 78.85\(c\).](#)
3. Tubing requirements:
- a. Oil wells: No provision.
 - b. Gas wells: No provision.

Hydraulic Fracturing

1. Permitting:
 - a. Before drilling: Pursuant to [58 Pa.C.S. § 3211\(a\)](#) no person may drill or alter a well without having first obtained a well permit from the department. If drilling is commenced within one year of permit issuance and drilling is pursued with due diligence, the well permit remains in force until the well is plugged in accordance with [Section 3220](#) or the permit is revoked. Accordingly, completion activities are authorized by the well permit.
 - b. Before fracing: N/A
 - c. How long before: N/A
2. Reporting Requirements: Reporting requirements related to hydraulic fracturing is outlined in [58 Pa.C.S. § 3222-3222.1.](#)
 - a. Where reported: Completion reports are required to be submitted to the Department 30 days after completion of the well under [Section 3222\(b\)\(3\).](#) [Section 3222\(b.1\)](#) provides the information to be included in this report, including the operator’s stimulation record. Within 60 days following the conclusion of hydraulic fracturing, the operator of the well shall complete the chemical disclosure registry form and post the form on the chemical disclosure registry. [Section 3202](#) defined “chemical disclosure registry” as Internet website developed by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission or their successor organizations.
 - b. When reported: Completion reports are required to be submitted to the Department 30 days after completion of the well under [Section 3222\(b\)\(3\).](#) The information submitted to the chemical disclosure registry

must be submitted 60 days after hydraulic fracturing activities are completed.

3. Source water requirements: [Section 3211\(m\)](#) requires person withdrawing water or using water from sources within the Commonwealth for the drilling or hydraulic fracture stimulation of any natural gas well completed in an unconventional formation to obtain an approved water management plan. The plan requirements are outlined in [Section 3211\(m\)\(2\)](#).
4. Mechanical Integrity:
 - a. Cementing log required: Yes, pursuant to 25 Pa.Code § 78.85 a copy of the cement job log shall be available at the well site for inspection for the department during drilling operations and must include the mix water temperature and pH, type of cement with listing and quantity of additive types, the volume, yield and density in pounds per gallon of the cement and the amount of cement returned to the surface, if any. Cementing procedural information must include a description of the pumping rates in barrels per minute, pressures in pounds per square inch, time in minutes and sequence of events during the cementing operation. The cement job log shall be maintained by the operator after drilling operations for at least 5 years and be made available to the Department upon request.
 - b. Pressure testing: Pressure testing requirements are outlined in [25 Pa.Code § 78.83-84, 88](#).
 - c. Pressure monitoring: [25 Pa. Code § 78.88](#) requires quarterly inspections which may include pressure tests to demonstrate the integrity of the well.
 - d. Blowout preventer required: Yes. Blow-out prevention requirements are outlined in [25 Pa.Code § 78.71-72](#).
5. Disposal of flowback fluids:
 - a. Retaining pits: Yes. [25 Pa.Code § 55-63](#) addresses waste management on the well site.
 - b. Tanks: [25 Pa. Code § 78.56](#) contains requirements for temporary containment of flowback in tanks.
 - c. Approved discharge to surface water: [25 Pa. Code § 95](#) specifies that new and expanding treated discharges of wastewater resulting from fracturing, production, field exploration, drilling or well completion of natural gas wells may be authorized provided that certain requirements are met, including certain effluent limitations (PA Safe Drinking Water Act standards).

- d. Underground injection: Before DEP issues a permit for a disposal well, the operator must obtain a permit from EPA's Underground Injection Control (UIC) program, see [25 Pa. Code § 78.18](#). Under the federal Safe Drinking Water Act (SDWA), EPA is required to develop minimum federal requirements to prevent injection wells from contaminating underground sources of drinking water, including well permitting and well construction, operation and monitoring requirements. States may apply to EPA for primacy to implement a state UIC program – Pennsylvania, however, has not adopted primacy for a UIC program. Instead, EPA directly implements the UIC program for the Commonwealth.
6. Chemical disclosure requirement:
- a. Mandatory: Yes,
 - b. Where disclosed: To PADEP and the internet website developed by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission.
 - c. When disclosed (pre-fracing, post-fracing, both): Completion reports are to be submitted to the department 30 days after completion of a well. 60 days after the conclusion of hydraulic fracturing, the operator must complete the chemical disclosure registry and post on the internet website developed by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission.
 - d. Time limit to disclose: See above.
 - e. Information required to be disclosed: Completion reports requirements are outlined in 58 Pa.C.S. § 3222(b.1).
 - f. Trade secret protection: 58 Pa.C.S. specifies that “When an operator submits its stimulation record under (b.1), the operator must designate specific portions of the stimulation record as containing a trade secret of confidential proprietary information. The department shall prevent disclosure of a designated trade secret or confidential proprietary information to the extent permitted by the act of February 14, 2008 (P.L. 6, No.3), known as the Right-To-Know-Law or other applicable state law.”
 - g. Required disclosure to health/emergency personnel: Yes, requirements provides in [58 Pa.C.S. § 3222.1](#).

Underground Injection

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

Completion

1. Completion report required: Yes.
 - a. Time limit: A completion report containing the information required by [58 Pa.C.S. § 3222](#) and [25 Pa. Code § 78.122](#) must be filed within 30 days after completion of the well, when the well is capable of production. [58 Pa.C.S. § 3222\(b\)\(2\)](#).
 - b. Where submitted: To the Department of Environmental Protection.
2. Well logs required to be filed: Yes.
 - a. Time limit: Well records must be filed within 30 days of cessation of drilling. [58 Pa.C.S. 3222\(b\)\(1\)](#). Upon request of the department, the well operator shall, within 90 days of completion or recompletion of drilling, submit a copy of any electrical, radioactive or other standard industry logs which have been run. [58 Pa.C.S. § 3222\(b\)\(4\)](#). Upon request by the department within one year, the well operator shall file a copy of drill stem test charts, formation water analysis, porosity, permeability or fluid saturation measurements, core analysis and lithologic log or sample description or other similar data as compiled. No information shall be required unless the well operator had it compiled in the ordinary course of business, and interpretation of data under this paragraph is not required to be filed. [58 Pa.C.S. § 3222\(b\)\(5\)](#).
 - b. Where submitted: To the Department of Environmental Protection.
 - c. Confidential time period: None.
 - d. Available for public use: Yes.
 - e. Log catalog available: N/A
3. Multiple completion regulation: Not applicable.
 - a. Approval obtained: Not applicable.
4. Commingling in well bore: Not applicable.
 - a. Approval obtained: Not applicable.

Oil Production

1. Definition of an oil well: “Oil Well” is not a defined term. “Well” and “oil” are defined at [58 Pa.C.S. § 3203](#).
2. Potential tests required: None.

- a. Time interval: Not applicable.
 - b. Witness required: Not applicable.
- 3. Maximum gas-oil ratio: No regulation.
 - a. Provision for limiting gas-oil ratio: No.
 - b. Exception to limiting gas-oil ratio: No.
- 4. Bottom-hole pressure test reports required: Provision to include in well record, if taken.
 - a. Periodical bottom-hole pressure surveys: No.
- 5. Commingling oil in common facilities: No.
- 6. Measurement involving meters: No.
- 7. Production reports: [58 Pa.C.S. § 3222\(a\)-\(a.1\)](#).
 - a. By lease: No.
 - b. By well: Annual production report is required on an individual well basis.
 - c. Time limit: Annual for conventional wells and semi-annual for unconventional wells.

Gas Production

- 1. Definition of a gas well: "Gas well" is not a defined term. Both "Gas" and "Well" are defined in [58 Pa.C.S. § 3203](#)
- 2. Pressure base 14.7 psia @ 60 degrees F. Initial potential tests:
 - a. Time interval: Not applicable.
 - b. Witness required: Not applicable.
- 3. Bottom-hole pressure test reports required: Provision to include in well record, if taken.
 - a. Periodical bottom-hole pressure surveys: No.
- 4. Commingling of gas in common facilities: No.
- 5. Measurement involving meters: No
- 6. Production reports: [58 Pa.C.S. § 3222\(a\)-\(a.1\)](#).

- a. By lease: No.
- b. By well: Annual production report is required on an individual well basis.
- c. Time limits: Annual for conventional wells and semi-annually for unconventional wells. [58 Pa.C.S. .](#)