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## **HOUSE BILL NO. 881**

Offered January 9, 2002 Prefiled January 9, 2002

A BILL to amend and reenact §§ 45.1-361.1 and 45.1-361.35 of the Code of Virginia and to amend the Code of Virginia by adding sections numbered §§ 45.1-361.29:1 and 45.1-361.29:2, relating to gas and oil well drilling.

## Patron—Phillips

Referred to Committee on Agriculture, Chesapeake and Natural Resources

Be it enacted by the General Assembly of Virginia:

1. That §§ 45.1-361.1 and 45.1-361.35 of the Code of Virginia are amended and reenacted, and that the Code of Virginia is amended by adding sections numbered §§ 45.1-361.29:1 and 45.1-361.29:2 as follows:

§ 45.1-361.1. Definitions.

As used in this chapter, unless the context clearly indicates otherwise:

"Abandonment of a well" or "cessation of well operations" means the time at which (i) a gas or oil operator has ceased operation of a well and has not properly plugged the well and reclaimed the site as required by this chapter, (ii) the time at which a gas or oil operator has allowed the well to become incapable of production or conversion to another well type, or (iii) the time at which the Director revokes a permit or forfeits a bond covering a gas or oil operation.

"Associated facilities" means any facility utilized for gas or oil operations in the Commonwealth, other than a well or a well site.

"Barrel" means forty-two U.S. gallons of liquids, including slurries, at a temperature of sixty degrees Fahrenheit.

"Board" means the Virginia Gas and Oil Board.

"Coalbed methane gas" means occluded natural gas produced from coalbeds and rock strata associated therewith.

"Coalbed methane gas well" means a well capable of producing coalbed methane gas.

"Coalbed methane gas well operator" means any person who has been designated to operate or does operate a coalbed methane gas well.

"Coal operator" means any person who has the right to operate or does operate a coal mine.

"Coal owner" means any person who owns, leases, mines and produces, or has the right to mine and produce, a coal seam.

"Coal seam" means any stratum of coal twenty inches or more in thickness, unless a stratum of less thickness is being commercially worked, or can in the judgment of the Department foreseeably be commercially worked and will require protection if wells are drilled through it.

"Correlative rights" means the right of each gas or oil owner having an interest in a single pool to have a fair and reasonable opportunity to obtain and produce his just and equitable share of production of the gas or oil in such pool or its equivalent without being required to drill unnecessary wells or incur other unnecessary expenses to recover or receive the gas or oil or its equivalent.

"Cubic foot of gas" means the volume of gas contained in one cubic foot of space at a standard pressure base of 14.73 pounds per square foot and a standard temperature base of sixty degrees Fahrenheit.

"Disposal well" means any well drilled or converted for the disposal of drilling fluids, produced waters, or other wastes associated with gas or oil operations.

"Drilling unit" means the acreage on which one gas or oil well may be drilled.

"Enhanced recovery" means (i) any activity involving injection of any air, gas, water or other fluid into the productive strata, (ii) the application of pressure, heat or other means for the reduction of viscosity of the hydrocarbons, or (iii) the supplying of additional motive force other than normal pumping to increase the production of gas or oil from any well, wells or pool.

"Exploratory well" means any well drilled (i) to find and produce gas or oil in an unproven area, (ii) to find a new reservoir in a field previously found to be productive of gas or oil in another reservoir, or (iii) to extend the limits of a known gas or oil reservoir.

"Field rules" means rules established by order of the Virginia Gas and Oil Board that define a pool, drilling units, production allowables, or other requirements for gas or oil operations within an identifiable area.

"First point of sale" means, for oil, the point at which the oil is sold, exchanged or transferred for

HB881 2 of 6

value from one person to another person, or when the original owner of the oil uses the oil, the point at which the oil is transported off the permitted site and delivered to another facility for use by the original owner; and for gas, the point at which the gas is sold, exchanged or transferred for value to any interstate or intrastate pipeline, any local distribution company, any person for use by such person, or when the gas is used by the owner of the gas for a purpose other than the production or transportation of the gas, the point at which the gas is delivered to a facility for use.

"Fund" means the Gas and Oil Plugging and Restoration Fund.

"Gas" or "natural gas" means all natural gas whether hydrocarbon or nonhydrocarbon or any combination or mixture thereof, including hydrocarbons, hydrogen sulfide, helium, carbon dioxide, nitrogen, hydrogen, casing head gas, and all other fluids not defined as oil pursuant to this section.

"Gas or oil operations" means any activity relating to drilling, redrilling, deepening, stimulating, production, enhanced recovery, converting from one type of a well to another, combining or physically changing to allow the migration of fluid from one formation to another, plugging or replugging any well; ground disturbing activity relating to the development, construction, operation and abandonment of a gathering pipeline; the development, operation, maintenance, and restoration of any site involved with gas or oil operations; or any work undertaken at a facility used for gas or oil operations. The term embraces all of the land or property that is used for or whichthat contributes directly or indirectly to a gas or oil operation, including all roads.

"Gas or oil operator" means any person who has been designated to operate or does operate any gas or oil well or gathering pipeline.

"Gas or oil owner" means any person who owns, leases, has an interest in, or who has the right to explore for, drill or operate a gas or oil well as principal or as lessee. In the event that the gas is owned separately from the oil, the definitions contained herein shall apply separately to the gas owner or oil owner.

"Gathering pipeline" means (i) a pipeline whichthat is used or intended for use in the transportation of gas or oil from the well to a transmission pipeline regulated by the United States Department of Transportation or the State Corporation Commission or (ii) a pipeline whichthat is used or intended for use in the transportation of gas or oil from the well to an off-site storage, marketing, or other facility where the gas or oil is sold.

"Geophysical operator" means a person who has the right to explore for gas or oil using ground disturbing geophysical exploration.

"Gob" means the de-stressed zone associated with any full-seam extraction of coal that extends above and below the mined-out coal seam.

"Ground disturbing" means any changing of land whichthat may result in soil erosion from water or wind and the movement of sediments into state waters, including, but not limited to, clearing, grading, excavating, drilling, and transporting and filling of land.

"Ground disturbing geophysical exploration" or "geophysical operation" means any activity in search of gas or oil that breaks or disturbs the surface of the earth, including but not limited to road construction or core drilling. The term shall not include the conduct of gravity, magnetic, radiometric and similar geophysical surveys, and vibroseis or other similar seismic surveys.

"Injection well" means any well used to inject or otherwise place any substance associated with gas or oil operations into the earth or underground strata for disposal, storage or enhanced recovery.

"Inspector" means the Virginia Gas and Oil Inspector, appointed by the Director pursuant to § 45.1-361.4, or such other public officer, employee or other authority as may in emergencies be acting in the stead, or by law be assigned the duties of, the Virginia Gas and Oil Inspector.

"Log" means the written record progressively describing all strata, water, oil or gas encountered in drilling, depth and thickness of each bed or seam of coal drilled through, quantity of oil, volume of gas, pressures, rate of fill-up, fresh and salt water-bearing horizons and depths, cavings strata, casing records and such other information as is usually recorded in the normal procedure of drilling. The term shall also include electrical survey records or electrical survey logs.

"Mine" means an underground or surface excavation or development with or without shafts, slopes, drifts or tunnels for the extraction of coal, minerals or nonmetallic materials, commonly designated as mineral resources, and the hoisting or haulage equipment or appliances, if any, for the extraction of the mineral resources. The term embraces all of the land or property of the mining plant, including both the surface and subsurface, that is used or contributes directly or indirectly to the mining, concentration or handling of the mineral resources, including all roads.

"Mineral" shall have the same meaning as ascribed to it in § 45.1-180.

"Mineral operator" means any person who has the right to or does operate a mineral mine.

"Mineral owner" means any person who owns, leases, mines and produces, or who has the right to mine and produce minerals and to appropriate such minerals that he produces therefrom, either for himself or for himself and others.

"Nonparticipating operator" means a gas or oil owner of a tract included in a drilling unit who elects

to share in the operation of the well on a carried basis by agreeing to have his proportionate share of the costs allocable to his interest charged against his share of production from the well.

"Offsite disturbance" means any soil erosion, water pollution, or escape of gas, oil, or waste from gas, oil, or geophysical operations off a permitted site whichthat results from activity conducted on a permitted site.

"Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, whichthat are produced at the well in liquid form by ordinary production methods and whichthat are not the result of condensation of gas after it leaves the underground reservoir.

"Orphaned well" means any well abandoned prior to July 1, 1950, or for which no records exist concerning its drilling, plugging or abandonment.

"Participating operator" means a gas or oil owner who elects to bear a share of the risks and costs of drilling, completing, equipping, operating, plugging and abandoning a well on a drilling unit and to receive a share of production from the well equal to the proportion which the acreage in the drilling unit he owns or holds under lease bears to the total acreage of the drilling unit.

"Permittee" means any gas, oil, or geophysical operator holding a permit for gas, oil, or geophysical operations issued under authority of this chapter.

"Person under a disability" shall have the same meaning as ascribed to it in § 8.01-2.

"Pipeline" means any pipe above or below the ground used or to be used to transport gas or oil.

"Plat" or "map" means a map, drawing or print showing the location of a well or wells, mine, quarry, or other information required under this chapter.

"Pool" means an underground accumulation of gas or oil in a single and separate natural reservoir. It is characterized by a single natural pressure system so that production of gas or oil from one part of the pool tends to or does affect the reservoir pressure throughout its extent. A pool is bounded by geologic barriers in all directions, such as geologic structural conditions, impermeable strata, or water in the formation, so that it is effectively separated from any other pool whichthat may be present in the same geologic structure. A coalbed methane pool means an area whichthat is underlain or appears to be underlain by at least one coalbed capable of producing coalbed methane gas.

"Project area" means the well, gathering pipeline, associated facilities, roads, and any other disturbed area, all of which are permitted as part of a gas, oil, or geophysical operation.

"Public park" means an area or portion of an area dedicated or designated by any federal, state, or local agency primarily for public recreational use, whether or not such use is limited to certain times or days, including any land leased, reserved, or held open to the public because of that use, including any park created by interstate compact.

"Publicly owned park" means a public park that is owned by a federal, state, or local governmental entity, including any park created by interstate compact.

"Restoration" means all activity required to return a permitted site to other use after gas, oil, or geophysical operations have ended, as approved in the operations plan for the permitted site.

"Royalty owner" means any owner of gas or oil in place, or owner of gas or oil rights, who is eligible to receive payment based on the production of gas or oil.

"State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction and whichthat affect the public welfare.

"Stimulate" means any action taken by a gas or oil operator to increase the inherent productivity of a gas or oil well, including, but not limited to, fracturing, shooting or acidizing, but excluding (i) cleaning out, bailing or workover operations and (ii) the use of surface-tension reducing agents, emulsion breakers, paraffin solvents, and other agents whichthat affect the gas or oil being produced, as distinguished from the producing formation.

"Storage well" means any well used for the underground storage of gas.

"Surface owner" means any person who is the owner of record of the surface of the land.

"Waste from gas, oil, or geophysical operations" means any substance other than gas or oil whichthat is (i) produced or generated during or results from the development, drilling and completion of wells and associated facilities or the development and construction of gathering pipelines or (ii) produced or generated during or results from well, pipeline and associated facilities' operations, including, but not limited to, brines and produced fluids other than gas or oil. In addition, this term shall include all rubbish and debris, including all material generated during or resulting from well plugging, site restoration, or the removal and abandonment of gathering pipelines and associated facilities.

"Waste" or "escape of resources" means (i) physical waste, as that term is generally understood in the gas and oil industry; (ii) the inefficient, excessive, improper use, or unnecessary dissipation of reservoir energy; (iii) the inefficient storing of gas or oil; (iv) the locating, drilling, equipping, operating, or producing of any gas or oil well in a manner that causes, or tends to cause, a reduction in the quantity of gas or oil ultimately recoverable from a pool under prudent and proper operations, or that causes or tends to cause unnecessary or excessive surface loss or destruction of gas or oil; (v) the

HB881 4 of 6

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production of gas or oil in excess of transportation or marketing facilities; (vi) the amount reasonably required to be produced in the proper drilling, completing, or testing of the well from which it is produced, except gas produced from an oil well or condensate well pending the time when with reasonable diligence the gas can be sold or otherwise usefully utilized on terms and conditions that are just and reasonable; or (vii) underground or above ground waste in the production or storage of gas, oil, or condensate, however caused. The term "waste" does not include gas vented from methane drainage boreholes or coalbed methane gas wells, where necessary for safety reasons or for the efficient testing and operation of coalbed methane gas wells; nor does it include the plugging of coalbed methane gas wells for the recovery of the coal estate.

"Water well" means any well drilled, bored or dug into the earth for the sole purpose of extracting therefrom potable, fresh or usable water for household, domestic, industrial, agricultural or public use.

Well" means any shaft or hole sunk, drilled, bored or dug into the earth or into underground strata for the extraction, injection or placement of any gaseous or liquid substance, or any shaft or hole sunk or used in conjunction with such extraction, injection or placement. The term shall not include any shaft or hole sunk, drilled, bored or dug into the earth for the sole purpose of pumping or extracting therefrom potable, fresh or usable water for household, domestic, industrial, agricultural, or public use and shall not include water boreholes, methane drainage boreholes where the methane is vented or flared rather than produced and saved, subsurface boreholes drilled from the mine face of an underground coal mine, any other boreholes necessary or convenient for the extraction of coal or drilled pursuant to a uranium exploratory program carried out pursuant to the laws of this Commonwealth, or any coal or non-fuel mineral core hole or borehole for the purpose of exploration.

§ 45.1-361.29:1. Designating areas unsuitable for gas and oil drilling. A. Subject to valid existing rights, no gas or oil well drilling operations shall be conducted, unless those operations existed on the date of enactment:

1. On any lands within the boundaries of the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers Systems including, for study rivers designated under section 5(a) of the Wild and Scenic Rivers Act (16 USC § 1276(a)), a corridor extending at least one-quarter mile from each bank for the length of the segment being studied, and National Recreation Areas designated by Act of Congress;

2. On any Federal lands within the boundaries of any national forest, provided, however, that gas and oil drilling operations may be permitted on such lands if the Secretary finds that there are no significant recreational, timber, economic, or other values that may be incompatible with gas and oil drilling operations, and surface operations and impacts are incident to a gas or oil well;

3. On any lands where drilling will adversely affect any publicly owned park or any place included in the National Register of Historic Places, unless approved jointly by the division and the Federal, state, or local agency with jurisdiction over the park or place;

4. Within 100 feet, measured horizontally, (i) of the outside right-of-way line of any public road, except where drilling access roads or haulage roads join such right-of-way line; or (ii) where the division or the appropriate public road authority, pursuant to being designated as the responsible agency by the Director, allows the public road to be relocated, closed, or the area affected to be within 100 feet of such road, after public notice and opportunity for a public hearing in accordance with § 45.1-361.35, and making a written finding that the interests of the affected public and landowners will

5. Within 300 feet, measured horizontally, of any occupied dwelling, except when the owner of the dwelling has provided a written waiver consenting to gas and oil drilling closer than 300 feet, or the part of the drilling operation that is within 300 feet of the dwelling is a haul road or access road that connects with an existing public road on the side of the public road opposite the dwelling;

6. Within 300 feet measured horizontally of any public building, school, church, community or institutional building or public park; or

7. Within 100 feet measured horizontally of a cemetery;

- 8. There will be no gas or oil drilling, permitting, licensing or exploration on Federal Lands in the National Park System, National Wildlife Refuge System, National System of Trails, National Wilderness Preservation System, Wild and Scenic Rivers System, or National Recreation Areas, unless called for by Acts of Congress.
- B. Due to subsidence control, gas and oil drilling activities shall not be conducted beneath or adjacent to:
  - 1. Public buildings and facilities;
  - 2. Churches, schools, and hospitals; or
  - 3. Impoundments with a storage capacity of twenty acre-feet or more or bodies of water with a volume of twenty acre-feet or more, unless the subsidence control plan demonstrates that subsidence will not cause material damage to, or reduce the reasonably foreseeable use of, such features or facilities. If the division determines that it is necessary in order to minimize the potential for material damage to the

features or facilities described above or to any aquifer or body of water that serves as a significant water source for any public water supply system, it may limit the percentage of gas or oil extracted under or adjacent thereto.

§ 45.1-361.29:2. Permit requirements for exploration drilling of gas or oil wells, or occurring on lands designated as unsuitable for gas or oil drilling operations.

- A. Any person who intends to conduct gas or oil exploration outside a permit area or on lands designated as unsuitable for gas and oil drilling under § 45.1-361.29:1 shall, before conducting the exploration, submit an application and obtain written approval from the division in an exploration permit.
- B. Each application for an exploration permit shall contain all of the information required in § 45.1-361.29, as well as the following information:
- 1. A description of (i) cultural or historic resources listed in the National Register of Historic Places; (ii) cultural or historic resources known to be eligible for listing on the National Register for Historic Places; and (iii) known archeological resources located within the proposed exploration area.
- 2. A description of any endangered or threatened species listed pursuant to the Endangered Species Act of 1973 (16 USC § 1531 et seq.) identified within the proposed exploration area.
- 3. The name and address of the owner of record of the surface land and of the subsurface gas or oil estate of the area to be explored.
- 4. A map or maps at a scale of 1:24,000 or larger, showing the areas of land to be disturbed by the proposed exploration and reclamation. The map shall specifically show existing roads, occupied dwellings, topographic and drainage features, bodies of surface water, and pipelines; proposed locations of trenches, roads, and other access routes and structures to be constructed; the location of proposed land excavations; the location of exploration holes or other drill holes or underground openings; the location of excavated earth or waste-material disposal areas; and the location of critical habitats of any endangered or threatened species listed pursuant to the Endangered Species Act of 1973 (16 USC §1531 et seq.).
- 5. If the surface is owned by a person other than the applicant, a description of the basis upon which the applicant claims the right to enter that land for the purpose of conducting exploration and reclamation.
  - C. Public notice of the application and opportunity to comment shall be provided as follows:
- 1. Upon submission of an administratively complete application to the division, the applicant shall place an advertisement in a newspaper of general circulation in the locality of the proposed exploration area. A copy of the newspaper advertisement and proof of publication shall be filed with the division no later than four weeks after the date of publication.
- 2. The public notice shall state the name and address of the person seeking approval, the filing date of the application, that the application will be available for public inspection in the division's office in Big Stone Gap, the address of the division where written comments on the application may be submitted, the closing date of the comment period, and a description of the area of exploration.
- 3. Any person having an interest that is or may be adversely affected shall have the right to file written comments on the application within thirty days after the date of publication of the newspaper notice.
  - D. Decisions on applications for exploration.
- 1. The division shall act upon an administratively complete application for a gas or oil exploration permit and any written comments within a reasonable period of time. The approval of a gas or oil exploration permit may be based only on a complete and accurate application.
- 2. The division shall approve a complete and accurate application for a gas or oil exploration permit filed in accordance with this section if it finds, in writing, that the applicant has demonstrated that the exploration and reclamation described in the application will (i) be conducted in accordance with this section, § 45.1-361.29, and the applicable provisions of the program; (ii) not jeopardize the continued existence of an endangered or threatened species listed pursuant to section 4 of the Endangered Species Act of 1973 (16 USC § 1533) or result in the destruction or adverse modification of critical habitat of those species; and (iii) not adversely affect any cultural or historic resources listed on the National Register of Historic Places, pursuant to the National Historic Preservation Act, as amended (16 USC § 470 et seq., 1976, Supp. V), unless the proposed exploration has been approved by both the division and the agency with jurisdiction over such matters.
- 3. Terms of approval issued by the division shall contain conditions necessary to ensure that the exploration and reclamation will be conducted in compliance with this Act and the regulations promulgated by the Department.
  - E. Notice and hearing.

1. The division shall notify the applicant, the appropriate local governmental officials, and other commenters on the application, in writing, of its decision on the application. If the application is

HB881 6 of 6

305 disapproved, the notice to the applicant shall include a statement of the reason for disapproval. Public
306 notice of the decision on each application shall be posted by the division at the court house in the
307 county of the proposed exploration operations.
308 2. Any person having an interest that is or may be adversely affected by a decision of the division

2. Any person having an interest that is or may be adversely affected by a decision of the division pursuant to this section shall have the opportunity for administrative and judicial review as set forth in the Virginia Administrative Process Act (§ 2.2-4000 et seq.).

§ 45.1-361.35. Objections to permits; hearing.

- A. Objections to new or modification permits, or road restrictions as listed in § 45.1-361.29:1, may be filed with the Director by those having standing as set out in § 45.1-361.30. Such objections shall be filed within fifteen days of the objecting party's receipt of the notice required by § 45.1-361.30. Persons objecting to a permit must state the reasons for their objections.
- B. The only objections to permits or permit modifications which may be raised by surface owners are:
  - 1. The operations plan for soil erosion and sediment control is not adequate or not effective;
- 2. Measures in addition to the requirement for a well's water-protection string are necessary to protect fresh water-bearing strata;
  - 3. The permitted work will constitute a hazard to the safety of any person; and
- 4. Location of the coalbed methane well or coalbed methane well pipeline will unreasonably infringe on the surface owner's use of the surface, provided that a reasonable alternative site is available within the unit, and granting the objection will not materially impair any right contained in an agreement, valid at the time of the objection, between the surface owner and the operator or their predecessors or successors in interest.
- C. The only objections to permits or permit modifications which may be raised by royalty owners are whether the proposed well work:
  - 1. Directly impinges upon the royalty owner's gas and oil interest; or
- 2. Threatens to violate the objecting royalty owner's property or statutory rights aside from his contractual rights; and
- 3. Would not adequately prevent the escape of the Commonwealth's gas and oil resources or provide for the accurate measurement of gas and oil production and delivery to the first point to sale.
- D. Objections to permits or permit modifications may be raised by coal owners or operators pursuant to the provisions of §§ 45.1-361.11 and 45.1-361.12.
- E. The only objections to permits or permit modifications which may be raised by mineral owners are those which could be raised by a coal owner under § 45.1-361.11 provided the mineral owner makes the objection and affirmatively proves that it does in fact apply with equal force to the mineral in question.
- F. The only objections to permits or permit modifications which may be raised by gas storage field operators are those in which the gas storage operator affirmatively proves that the proposed well work will adversely affect the operation of his State Corporation Commission certificated gas storage field; however, nothing in this subsection shall be construed to preclude the owner of nonstorage strata from the drilling of wells for the purpose of producing oil or gas from any stratum above or below the storage stratum.
- G. The Director shall have no jurisdiction to hear objections with respect to any matter subject to the jurisdiction of the Board as set out in Article 2 (§ 45.1-361.13 et seq.) of this chapter. Such objections shall be referred to the Board in a manner prescribed by the Director.
- H. The Director shall fix a time and place for an informal fact-finding hearing concerning such objections. The hearing shall not be scheduled for less than twenty nor more than thirty days after the objection is filed. The Director shall prepare a notice of the hearing, stating all objections and by whom made, and send a copy of such notice by certified mail, return receipt requested, at least ten days prior to the hearing date, to the permit applicant and to every person with standing to object as prescribed by § 45.1-361.30.
- I. At the hearing, should the parties fail to come to an agreement, the Director shall proceed to decide the objection pursuant to those provisions of the Administrative Process Act (§ 2.2-4000 et seq.) relating to informal fact-finding procedures.