

1 Marcellus Draft Bill

2 November 18, 2011

3 As Reported out Joint Select Committee on Marcellus Shale

4 final revised

5

6

7

8

9

10 A BILL to repeal §22C-7-1, §22C-7-2 and §22C-7-3 of the Code of
11 West Virginia, 1931, as amended; to amend and reenact said
12 code by adding thereto a new section, designated §21-1-3a; to
13 amend and reenact §22-6-1, §22-6-2, §22-6-12, §22-6-14 and
14 §22-6-36 of said code; to amend and reenact said code by
15 adding thereto a new section, designated §22-6-2a; to amend
16 said code by adding thereto a new article, designated §22-6A-
17 1, §22-6A-2, §22-6A-3, §22-6A-4, §22-6A-5, §22-6A-6, §22-6A-7,
18 §22-6A-8, §22-6A-9, §22-6A-10, §22-6A-11, §22-6A-12, §22-6A-
19 13, §22-6A-14, §22-6A-15, §22-6A-16, §22-6A-17, §22-6A-18,
20 §22-6A-19, §22-6A-20, §22-6A-21, §22-6A-22, §22-6A-23, §22-6A-
21 24, §22-6A-25, and §22-6A-26; to amend and reenact §22C-8-2
22 of said code; and to amend and reenact §22C-9-2 of said code,
23 all relating generally to oil and gas wells; requiring
24 horizontal well operations to report certain employment

1 information to division of labor; redefining certain terms in
2 oil and gas statute; authorizing secretary to determine number
3 of oil and gas inspectors and supervisors and make inspections
4 to ensure compliance with applicable law; providing for
5 inspector qualifications and minimum salaries; authorizing
6 Department of Environmental Protection to promulgate
7 legislative rules governing methods of survey and information
8 on the plats and reports related to oil and gas permit maps;
9 providing for method of notice to coal owners and lessees of
10 record if declaration of interest is not filed; creating
11 Natural Gas Horizontal Well Control Act; providing short
12 title; making legislative findings and declarations of public
13 policy; providing for applicability of act and exemptions and
14 special considerations for karst formations; defining terms;
15 making horizontal wells subject to certain provisions in
16 conventional oil and gas statute; specifying powers and duties
17 of secretary; requiring permit for horizontal wells;
18 establishing permit application requirements; requiring bond
19 and permit fees; allowing for increase of permit fees by
20 legislative rule; providing for issuance of emergency permits;
21 providing for suspension and reinstatement of permits in
22 certain circumstances; providing for application review and
23 issuance of permit; establishing performance standards;
24 providing for copies of permits to be furnished to county

1 assessors; requiring certificate of approval for large
2 impoundment construction; requiring application for
3 certificate; establishing application requirements and payment
4 of fees; providing for modification, revocation or suspension
5 of certificate and hearing procedure; providing for
6 administrative appeals process; providing exceptions for
7 certain farm ponds; requiring proper disposal of liner and
8 liner wastes; authorizing secretary to propose legislative
9 rules governing impoundment certificates; notifying property
10 owners of submission of certain applications and providing
11 certain rights to property owners; establishing procedure for
12 filing comments and hearing process; establishing well
13 location restrictions; requiring promulgation of legislative
14 rules for plugging and abandonment of horizontal wells;
15 establishing reclamation requirements; requiring performance
16 bonds; providing for surface owner agreements; providing for
17 reimbursement of property taxes; providing for civil action
18 for water contamination or diminution; establishing water
19 rights and replacement procedure; establishing civil and
20 criminal penalties for violations and offenses; prohibiting
21 local regulation of method of gas operations; authorizing
22 local zoning and land development ordinances for gas
23 activities; requiring gas operations to comply with Division
24 of Highways road maintenance agreement; creating public

1 website information and electronic notification registry of
2 horizontal well permit applications; providing for air quality
3 regulation, study and rule making; requiring secretary to
4 report to Legislature regarding safety of pits and
5 impoundments; authorizing secretary to promulgate legislative
6 rules governing pits and impoundments; requiring comprehensive
7 review of horizontal drilling and hydraulic fracturing and
8 report to Legislature; requiring secretary to issue written
9 guidance document governing minimum casing standards; and
10 modifying definitions of shallow wells and deep wells.

11 *Be it enacted by the Legislature of West Virginia:*

12 That §22C-7-1, §22C-7-2 and §22C-7-3 of the Code of West
13 Virginia, 1931, as amended, be repealed; that said code be amended
14 by adding thereto a new section, designated §21-1-3a; that §22-6-1,
15 §22-6-2, §22-6-12, §22-6-14 and §22-6-36 of said code be amended
16 and reenacted; that said code be amended by adding thereto a new
17 section, designated §22-6-2a; that said code be amended by adding
18 thereto a new article, designated §22-6A-1, §22-6A-2, §22-6A-3,
19 §22-6A-4, §22-6A-5, §22-6A-6, §22-6A-7, §22-6A-8, §22-6A-9, §22-6A-
20 10, §22-6A-11, §22-6A-12, §22-6A-13, §22-6A-14, §22-6A-15, §22-6A-
21 16, §22-6A-17, §22-6A-18, §22-6A-19, §22-6A-20, §22-6A-21, §22-6A-
22 22, §22-6A-23, §22-6A-24, §22-6A-25, and §22-6A-26; that §22C-8-2
23 of said code be amended and reenacted; and that §22C-9-2 of said
24 code be amended and reenacted, all to read as follows:

1 verses out-of-state total payroll;

2 (4) A comparison of the number of in-state residents versus
3 the number of out of state residents being employed in the above
4 activities; and

5 (5) The average salary per job type.

6 (d) The employer or owner shall submit this information to the
7 division no later than January 31 of each year.

8 (e) The division shall utilize the collected information and
9 report to the legislature no later the February 15 of each year.

10 **CHAPTER 22. ENVIRONMENTAL RESOURCES.**

11 **ARTICLE 6. OFFICE OF OIL AND GAS; OIL AND GAS WELLS.**

12 **§22-6-1. Definitions.**

13 Unless the context in which used clearly requires a different
14 meaning, as used in this article:

15 (a) "Casing" means a string or strings of pipe commonly placed
16 in wells drilled for natural gas or petroleum or both;

17 (b) "Cement" means hydraulic cement properly mixed with water;

18 (c) "Chair" means the chair of the West Virginia shallow gas
19 well review board as provided for in section four, article eight,
20 chapter twenty-two-c of this code;

21 (d) "Coal operator" means any person or persons, firm,
22 partnership, partnership association or corporation that proposes
23 to or does operate a coal mine;

24 (e) "Coal seam" and "workable coal bed" are interchangeable

1 terms and mean any seam of coal twenty inches or more in thickness,
2 unless a seam of less thickness is being commercially worked, or
3 can in the judgment of the department foreseeably be commercially
4 worked and will require protection if wells are drilled through it;

5 (f) "Director" means the director of the division of
6 environmental protection as established in article one of this
7 chapter or such other person to whom the director has delegated
8 authority or duties pursuant to sections six or eight, article one
9 of this chapter.;

10 (g) "Deep well" means any well other than a shallow well or
11 coalbed methane well, drilled ~~and completed in~~ to a formation ~~at or~~
12 below the top of the uppermost member of the "Onondaga Group";

13 (h) "Expanding cement" means any cement approved by the office
14 of oil and gas which expands during the hardening process,
15 including, but not limited to, regular oil field cements with the
16 proper additives;

17 (i) "Facility" means any facility utilized in the oil and gas
18 industry in this state and specifically named or referred to in
19 this article or in article eight or nine of this chapter, other
20 than a well or well site;

21 (j) "Gas" means all natural gas and all other fluid
22 hydrocarbons not defined as oil in this section;

23 (k) "Oil" means natural crude oil or petroleum and other
24 hydrocarbons, regardless of gravity, which are produced at the well

1 in liquid form by ordinary production methods and which are not the
2 result of condensation of gas after it leaves the underground
3 reservoirs;

4 (l) "Owner" when used with reference to any well, shall
5 include any person or persons, firm, partnership, partnership
6 association or corporation that owns, manages, operates, controls
7 or possesses such well as principal, or as lessee or contractor,
8 employee or agent of such principal;

9 (m) "Owner" when used with reference to any coal seam, shall
10 include any person or persons who own, lease or operate such coal
11 seam;

12 (n) "Person" means any natural person, corporation, firm,
13 partnership, partnership association, venture, receiver, trustee,
14 executor, administrator, guardian, fiduciary or other
15 representative of any kind, and includes any government or any
16 political subdivision or any agency thereof;

17 (o) "Plat" means a map, drawing or print showing the location
18 of a well or wells as herein defined;

19 (p) "Pollutant" shall have the same meaning as provided in
20 subsection (17), section three, article eleven of this chapter,
21 ~~chapter twenty-two of this code;~~

22 (q) "Review board" means the West Virginia shallow gas well
23 review board as provided for in section four, article eight,
24 chapter twenty-two-c of this code;

1 (r) "Safe mining through of a well" means the mining of coal
2 in a workable coal bed up to a well which penetrates such workable
3 coal bed and through such well so that the casing or plug in the
4 well bore where the well penetrates the workable coal bed is
5 severed;

6 (s) "Shallow well" means any gas well, other than a coalbed
7 methane well, drilled no deeper than one hundred feet below the top
8 of the "Onondaga Group": ~~and completed in a formation above the top~~
9 ~~of the uppermost member of the "Onondaga Group":~~ *Provided, That in*
10 ~~drilling a shallow well the operator may penetrate into the~~
11 ~~"Onondaga Group" to a reasonable depth, not in excess of twenty~~
12 ~~feet, in order to allow for logging and completion operations, but~~
13 in no event may the "Onondaga Group" formation or any formation
14 below the "Onondaga Group" be ~~otherwise~~ produced, perforated or
15 stimulated in any manner;

16 (t) "Stimulate" means any action taken by a well operator to
17 increase the inherent productivity of an oil or gas well,
18 including, but not limited to, fracturing, shooting or acidizing,
19 but excluding cleaning out, bailing or workover operations;

20 (u) "Waste" means (i) physical waste, as the term is generally
21 understood in the oil and gas industry; (ii) the locating,
22 drilling, equipping, operating or producing of any oil or gas well
23 in a manner that causes, or tends to cause a substantial reduction
24 in the quantity of oil or gas ultimately recoverable from a pool

1 under prudent and proper operations, or that causes or tends to
2 cause a substantial or unnecessary or excessive surface loss of oil
3 or gas; or (iii) the drilling of more deep wells than are
4 reasonably required to recover efficiently and economically the
5 maximum amount of oil and gas from a pool; (iv) substantially
6 inefficient, excessive or improper use, or the substantially
7 unnecessary dissipation of, reservoir energy, it being understood
8 that nothing in this chapter shall be construed to authorize any
9 agency of the state to impose mandatory spacing of shallow wells
10 except for the provisions of section eight, article nine, chapter
11 twenty-two-c of this code and the provisions of article eight,
12 chapter twenty-two-c of this code; (v) inefficient storing of oil
13 or gas: *Provided*, That storage in accordance with a certificate of
14 public convenience issued by the federal energy regulatory
15 commission shall be conclusively presumed to be efficient and (vi)
16 other underground or surface waste in the production or storage of
17 oil, gas or condensate, however caused. Waste does not include gas
18 vented or released from any mine areas as defined in section two,
19 article one, chapter twenty-two-a of this code, or from adjacent
20 coal seams which are the subject of a current permit issued under
21 article two of chapter twenty-two-a of this code: *Provided*,
22 *however*, That nothing in this exclusion is intended to address
23 ownership of the gas;

24 (v) "Waters of this state" shall have the same meaning as the

1 term "waters" as provided in subsection (23), section three,
2 article eleven, chapter twenty-two of this code;

3 (w) "Well" means any shaft or hole sunk, drilled, bored or dug
4 into the earth or into underground strata for the extraction or
5 injection or placement of any liquid or gas, or any shaft or hole
6 sunk or used in conjunction with such extraction or injection or
7 placement. The term "well" does not include any shaft or hole sunk,
8 drilled, bored or dug into the earth for the sole purpose of core
9 drilling or pumping or extracting therefrom potable, fresh or
10 usable water for household, domestic, industrial, agricultural or
11 public use;

12 (x) "Well work" means the drilling, redrilling, deepening,
13 stimulating, pressuring by injection of any fluid, converting from
14 one type of well to another, combining or physically changing to
15 allow the migration of fluid from one formation to another or
16 plugging or replugging of any well; and

17 (y) "Well operator" or "operator" means any person or persons,
18 firm, partnership, partnership association or corporation that
19 proposes to or does locate, drill, operate or abandon any well as
20 herein defined.

21 **§22-6-2. Secretary -- Powers and duties generally; department**
22 **records open to public; inspectors.**

23 (a) The Secretary shall have as his or her duty the
24 supervision of the execution and enforcement of matters related to

1 oil and gas set out in this article and in articles eight and nine
2 of this chapter.

3 (b) The Secretary is authorized to propose rules for
4 legislative approval in accordance with the provisions of article
5 three, chapter twenty-nine-a of this code necessary to effectuate
6 the above stated purposes.

7 (c) The Secretary shall have full charge of the oil and gas
8 matters set out in this article and in articles eight and nine of
9 this chapter. In addition to all other powers and duties conferred
10 upon him or her, the Secretary shall have the power and duty to:

11 (1) Supervise and direct the activities of the office of oil
12 and gas and see that the purposes set forth in subsections (a) and
13 (b) of this section are carried out;

14 (2) ~~Employ a supervising oil and gas inspector and oil and gas~~
15 ~~inspectors~~ Determine the number of supervising oil and gas
16 inspectors and oil and gas inspectors needed to carry out the
17 purposes of this article and articles six-a, eight, nine, ten, and
18 twenty-one of this chapter and appoint them as such. All
19 appointees shall be qualified civil service employees, but no
20 person is eligible for appointment until he or she has served in a
21 probationary status for a period of six months to the satisfaction
22 of the Secretary;

23 (3) Supervise and direct such oil and gas inspectors and
24 supervising inspector in the performance of their duties;

1 (4) ~~Suspend for good cause any oil and gas inspector or~~
2 ~~supervising inspector without compensation for a period not~~
3 ~~exceeding thirty days in any calendar year~~ Make investigations or
4 inspections necessary to ensure complete compliance with the
5 provisions of this code and enforce the provisions of this article
6 and articles six-a, eight, nine, ten, and twenty-one of this
7 chapter;

8 (5) Prepare report forms to be used by oil and gas inspectors
9 or the supervising inspector in making their findings, orders and
10 notices, upon inspections made in accordance with this article and
11 articles ~~seven,~~ six-a, eight, nine, ~~and ten,~~ and eleven of this
12 chapter;

13 (6) Employ a hearing officer and such clerks, stenographers
14 and other employees, as may be necessary to carry out his or her
15 duties and the purposes of the office of oil and gas and fix their
16 compensation;

17 (7) Hear and determine applications made by owners, well
18 operators and coal operators for the annulment or revision of
19 orders made by oil and gas inspectors or the supervising inspector,
20 and to make inspections, in accordance with the provisions of this
21 article and articles eight and nine of this chapter;

22 (8) Cause a properly indexed permanent and public record to be
23 kept of all inspections made by the Secretary or by oil and gas
24 inspectors or the supervising inspector;

1 (9) Conduct such research and studies as the Secretary shall
2 deem necessary to aid in protecting the health and safety of
3 persons employed within or at potential or existing oil or gas
4 production fields within this state, to improve drilling and
5 production methods and to provide for the more efficient protection
6 and preservation of oil and gas-bearing rock strata and property
7 used in connection therewith;

8 (10) Collect a permit fee of \$400 for each permit application
9 filed other than an application for a deep well, horizontal well,
10 or a coalbed methane well; and collect a permit fee of \$650 for
11 each permit application filed for a deep well: *Provided*, That no
12 permit application fee shall be required when an application is
13 submitted solely for the plugging or replugging of a well, or to
14 modify an existing application for which the operator previously
15 has submitted a permit fee under this section. All application
16 fees required hereunder shall be in lieu of and not in addition to
17 any fees imposed under article eleven of this chapter relating to
18 discharges of stormwater but shall be in addition to any other fees
19 required by the provisions of this article: *Provided, however*,
20 That upon a final determination by the United States Environmental
21 Protection Agency regarding the scope of the exemption under
22 section 402(1)(2) of the federal Clean Water Act (33 U.S.C.
23 1342(1)(2)), which determination requires a "national pollutant
24 discharge elimination system" permit for stormwater discharges from

1 the oil and gas operations described therein, any permit fees for
2 stormwater permits required under article eleven of this chapter
3 for such operations shall not exceed \$100.

4 (11) Perform all other duties which are expressly imposed upon
5 the Secretary by the provisions of this chapter;

6 (12) Perform all duties as the permit issuing authority for
7 the state in all matters pertaining to the exploration,
8 development, production, storage and recovery of this state's oil
9 and gas;

10 (13) Adopt rules with respect to the issuance, denial,
11 retention, suspension or revocation of permits, authorizations and
12 requirements of this chapter, which rules shall assure that the
13 rules, permits and authorizations issued by the Secretary are
14 adequate to satisfy the purposes of this article and articles six-
15 a, seven, eight, nine, ~~and~~ ten and twenty-one of this chapter
16 particularly with respect to the consolidation of the various state
17 and federal programs which place permitting requirements on the
18 exploration, development, production, storage and recovery of this
19 state's oil and gas: *Provided,* That notwithstanding any provisions
20 of this article and articles seven, eight, nine and ten of this
21 chapter to the contrary, the environmental quality board shall have
22 the sole authority pursuant to section three, article three,
23 chapter twenty-two-b to promulgate rules setting standards of water
24 quality applicable to waters of the state; and

1 (14) Perform such acts as may be necessary or appropriate to
2 secure to this state the benefits of federal legislation
3 establishing programs relating to the exploration, development,
4 production, storage and recovery of this state's oil and gas, which
5 programs are assumable by the state.

6 (d) The Secretary shall have authority to visit and inspect
7 any well or well site and any other oil or gas facility in this
8 state and may call for the assistance of any oil and gas inspector
9 or inspectors or supervising inspector whenever such assistance is
10 necessary in the inspection of any such well or well site or any
11 other oil or gas facility. Similarly, all oil and gas inspectors
12 and the supervising inspector shall have authority to visit and
13 inspect any well or well site and any other oil or gas facility in
14 this state. They shall make all necessary surveys and inspections
15 of oil and gas operations required by this article and articles
16 six-a, eight, nine, ten and twenty-one of this chapter; administer
17 and enforce all oil and gas laws and rules; and perform other
18 duties and services as may be prescribed by the secretary.
19 Inspectors shall give particular attention to all conditions of
20 each permit to ensure complete compliance therewith. They shall
21 note and describe all violations of this article and articles six-
22 a, eight, nine, ten or twenty-one of this chapter and immediately
23 report those violations to the secretary in writing, furnishing at
24 the same time a copy of the report to the operator concerned. Any

1 well operator, coal operator operating coal seams beneath the tract
2 of land, or the coal seam owner or lessee, if any, if said owner or
3 lessee is not yet operating said coal seams beneath said tract of
4 land may request the Secretary to have an immediate inspection
5 made. The operator or owner of every well or well site or any
6 other oil or gas facility shall cooperate with the Secretary, all
7 oil and gas inspectors and the supervising inspector in making
8 inspections or obtaining information.

9 ~~(e) Oil and gas inspectors shall devote their full time and~~
10 ~~undivided attention to the performance of their duties, and they~~
11 ~~shall be responsible for the inspection of all wells or well sites~~
12 ~~or other oil or gas facilities in their respective districts as~~
13 ~~often as may be required in the performance of their duties.~~

14 ~~(f)~~ (e) All records of the office shall be open to the public.

15 **§22-6-2a. Oil and gas inspectors qualifications and salary.**

16 (a) No person is eligible for appointment as an oil and gas
17 inspector or supervising inspector unless, at the time of
18 probationary appointment, the person: (1) Is a citizen of West
19 Virginia, in good health and of good character, reputation and
20 temperate habits; (2) has had at least two years actual relevant
21 experience in the oil and gas industry: *Provided*, That no more
22 than one year of the experience may be satisfied by any of
23 following: (i) A bachelor of science degree in science or
24 engineering; (ii) an associate degree in petroleum technology; or

1 (iii) actual relevant environmental experience including, without
2 limitation, experience in wastewater, solid waste or reclamation
3 each full year of which shall be considered as a year of actual
4 relevant experience in the oil and gas industry; and (3) has good
5 theoretical and practical knowledge of oil and gas drilling and
6 production methods, practices and techniques, sound safety
7 practices and applicable water and mining laws.

8 (b) In order to qualify for appointment as an oil and gas
9 inspector or supervising inspector, an eligible applicant shall
10 submit to a written and oral examination by the Division of
11 Personnel and shall furnish any evidence of good health, character
12 and other facts establishing eligibility required by the Division.
13 If the Division finds after investigation and examination that an
14 applicant: (1) Is eligible for appointment; and (2) has passed all
15 written and oral examinations, the Division shall add the
16 applicant's name and grade to the register of qualified eligible
17 candidates and certify its action to the Secretary of the
18 Department of Environmental Protection. No candidate's name may
19 remain on the register for more than three years without re-
20 qualifying.

21 (c) Every supervising oil and gas inspector shall be paid not
22 less than \$40,000 per year. Every oil and gas inspector shall be
23 paid not less than \$35,000 per year;

24 **§22-6-12. Plats prerequisite to drilling or fracturing wells;**

1 **preparation and contents; notice and information furnished to**
2 **coal operators, owners or lessees; issuance of permits;**
3 **performance bonds or securities in lieu thereof; bond**
4 **forfeiture.**

5 (a) Before drilling for oil or gas, or before fracturing or
6 stimulating a well on any tract of land, the well operator shall
7 have a plat prepared by a ~~licensed land~~ professional surveyor ~~or~~
8 ~~registered engineer~~ showing the district and county in which the
9 tract of land is located, the name and acreage of the same, the
10 names of the owners of adjacent tracts, the proposed or actual
11 location of the well determined by survey, the courses and
12 distances of such location from two permanent points or landmarks
13 on said tract and the number to be given the well. In the event
14 the tract of land on which the said well proposed to be drilled or
15 fractured is located is known to be underlain by one or more coal
16 seams, copies of the plat shall be forwarded by registered or
17 certified mail to each and every coal operator operating said coal
18 seams beneath said tract of land, who has mapped the same and filed
19 such maps with the Office of Miners' Health, Safety and Training in
20 accordance with chapter twenty-two-a of this code and the coal seam
21 owner of record and lessee of record, if any, if said owner or
22 lessee has recorded the declaration provided in section thirty-six
23 of this article, and if said owner or lessee is not yet operating
24 said coal seams beneath said tract of land. With each of ~~such~~ the

1 plats there shall be enclosed a notice (form for which shall be
2 furnished on request by the secretary) addressed to the secretary
3 and to each ~~such~~ coal operator, owner and lessee, if any, at their
4 respective addresses, informing them that ~~such~~ the plat and notice
5 are being mailed to them respectively by registered or certified
6 mail, pursuant to the requirements of this article: Provided, That
7 the Department of Environmental Protection, with advice from the
8 West Virginia Board of Professional Surveyors, may promulgate rules
9 to govern methods of survey and information to be present on the
10 plats and reports related to oil and gas permit maps including but
11 not limited to requiring a north arrow, tax map and parcel numbers
12 for surface tracts, mineral boundary lines, mineral owner name and
13 title reference, surface owner name and title reference, named
14 waterways, state highway and county numbered route numbers, and the
15 plat shall be drawn to a scale large enough for the information to
16 be legible.

17 (b) If no objections are made, or are found by the secretary,
18 to ~~such~~ the proposed location or proposed fracturing within fifteen
19 days from receipt of such plat and notice by the secretary, the
20 same shall be filed and become a permanent record of ~~such~~ the
21 location or fracturing subject to inspection at any time by any
22 interested person, and the secretary may ~~forthwith~~ immediately
23 issue to the well operator a permit reciting the filing of ~~such~~ the
24 plat, that no objections have been made by the coal operators,

1 owners and lessees, if any, or found thereto by the secretary, and
2 authorizing the well operator to drill at ~~such~~ the location, or to
3 fracture the well. Unless the secretary has objections to ~~such~~ the
4 proposed location or proposed fracturing or stimulating, ~~such~~ the
5 permit may be issued ~~prior to~~ before the expiration of ~~such~~ the
6 fifteen-day period upon the obtaining by the well operator of the
7 consent in writing of the coal operator or operators, owners and
8 lessees, if any, to whom copies of the plat and notice ~~shall~~ have
9 been mailed as herein required, and upon presentation of ~~such~~ the
10 written consent to the secretary. The notice above provided ~~for~~
11 may be given to the coal operator by delivering or mailing it by
12 registered or certified mail as above to any agent or
13 superintendent in actual charge of mines.

14 (c) A permit to drill, or to fracture or stimulate an oil or
15 gas well, ~~shall~~ may not be issued unless the application therefor
16 is accompanied by a bond as provided in section twenty-six of this
17 article.

18 **§22-6-14. Plats prerequisite to introducing liquids or waste into**
19 **wells; preparation and contents; notice and information**
20 **furnished to coal operators, owners or lessees and director;**
21 **issuance of permits; performance bonds or security in lieu**
22 **thereof.**

23 (a) Before drilling a well for the introduction of liquids for
24 the purposes provided ~~for~~ in section twenty-five of this article or

1 for the introduction of liquids for the disposal of pollutants or
2 the effluent therefrom on any tract of land, or before converting
3 an existing well for such purposes, the well operator shall have a
4 plat prepared by a ~~registered engineer or licensed land~~
5 professional surveyor showing the district and county in which the
6 tract of land is located, the name and acreage of the same, the
7 names of the owners of all adjacent tracts, the proposed or actual
8 location of the well or wells determined by a survey, the courses
9 and distances of ~~such~~ the location from two permanent points of
10 land marked on said tract and the number to be given to the well,
11 and shall forward by registered or certified mail the original and
12 one copy of the plat to the director. In addition, the well
13 operator shall provide the following information on the plat or by
14 way of attachment thereto to the director in the manner and form
15 prescribed by the director's rules: (1) The location of all wells,
16 abandoned or otherwise located within the area to be affected; (2)
17 where available, the casing records of all ~~such~~ those wells; (3)
18 where available, the drilling log of all ~~such~~ those wells; (4) the
19 maximum pressure to be introduced; (5) the geological formation
20 into which ~~such~~ that liquid or pressure is to be introduced; (6) a
21 general description of the liquids to be introduced; and (7) the
22 location of all water-bearing horizons above and below the
23 geological formation into which ~~such~~ that pressure, liquid or waste
24 is to be introduced; (8) ~~such~~ other information as the director

1 requires by rule: ~~may require~~ *Provided, That the Department of*
2 *Environmental Protection, with advice from the West Virginia Board*
3 *of Professional Surveyors may promulgate rules to govern methods of*
4 *survey and information to be present on the plats and reports*
5 *related to oil and gas permit maps including but not limited to*
6 *requiring a north arrow, tax map and parcel numbers for surface*
7 *tracts, mineral boundary lines, mineral owner name and title*
8 *reference, surface owner name and title reference, named waterways,*
9 *state highway and county numbered route numbers, and the plat shall*
10 *be drawn to a scale large enough for the information to be legible.*

11 (b) ~~In the event~~ If the tract of land on which ~~said the~~ the well
12 proposed to be drilled or converted for the purposes provided ~~for~~
13 in this section is located is known to be underlaid with coal
14 seams, copies of the plat and all information required by this
15 section shall be forwarded by the operator by registered or
16 certified mail to each and every coal operator operating coal seams
17 beneath ~~said the~~ the tract of land, who has mapped the same and filed
18 such maps with the Office of Miners' Health, Safety and Training in
19 accordance with chapter twenty-two-a of this code, and the coal
20 seam owner of record and lessee of record, if any, if ~~said the~~
21 owner or lessee has recorded the declaration provided in section
22 thirty-six of this article, and if ~~said the~~ the owner or lessee is not
23 yet operating ~~said those~~ those seams beneath ~~said the~~ the tract of land.
24 With each of ~~such the~~ such the plats, there shall be enclosed a notice (form

1 for which shall be furnished on request by the director) addressed
2 to the director and to each ~~such~~ coal operator, owner or lessee, if
3 any, at their respective addresses, informing them that ~~such~~ the
4 plat and notice are being mailed to them, respectively, by
5 registered or certified mail, pursuant to the requirements of this
6 section.

7 (c) If no objections are made by any such coal operator, owner
8 or lessee, or the director, ~~such~~ the proposed drilling or
9 converting of the well or wells for the purposes provided ~~for~~ in
10 this section within thirty days from the receipt of ~~such~~ the plat
11 and notice by the director, the same shall be filed and become a
12 permanent record of ~~such~~ the location or well, subject to
13 inspection at any time by any interested person, and the director
14 may after public notice and opportunity to comment, issue ~~such~~ a
15 permit authorizing the well operator to drill at ~~such~~ the location
16 or convert ~~such~~ the existing well or wells for the purposes
17 provided ~~for~~ in this section. The notice above provided ~~for~~ may be
18 given to the coal operator by delivering or mailing it by
19 registered or certified mail as above to any agent or
20 superintendent in actual charge of the mines.

21 (d) A permit to drill a well or wells or convert an existing
22 well or wells for the purposes provided ~~for~~ in this section ~~shall~~
23 may not be issued until all of the bonding provisions required by
24 the provisions of section twelve of this article have been fully

1 complied with and all ~~such~~ those bonding provisions ~~shall~~ apply to
2 all wells drilled or converted for the purposes provided ~~for~~ in
3 this section as if ~~such~~ those wells had been drilled for the
4 purposes provided ~~for~~ in section twelve of this article, except
5 that ~~such~~ the bonds shall be conditioned upon full compliance with
6 all laws and rules relating to the drilling of a well or the
7 converting of an existing well for the purposes provided ~~for~~ in
8 ~~said~~ section twenty-five of this article, or introducing of liquids
9 for the disposal of pollutants including the redrilling, deepening,
10 casing, plugging or abandonment of all such wells.

11 **§22-6-36. Declaration of oil and gas notice by owners and lessees**
12 **of coal seams.**

13 (a) For purposes of notification under this article, any owner
14 or lessee of coal seams ~~shall~~ may file a declaration of the owner's
15 or lessee's interest in ~~such~~ the coal seams with the clerk of the
16 county commission in the county where ~~such~~ the coal seams are
17 located. ~~Said~~ The clerk shall file and index ~~such~~ the declaration
18 in accordance with section two, article one, chapter thirty-nine of
19 this code, and shall index the name of the owner or lessee of ~~such~~
20 the coal seams in the grantor index of the record maintained for
21 the indexing of leases. If the declaration of owner's or lessee's
22 interest is not filed, then notification pursuant to this article
23 shall be made to the owners or lessees of coal seams of record.

24 (b) The declaration, if filed, ~~shall~~ entitles ~~such~~ the owner

1 or lessee to the notices provided in sections twelve, thirteen,
2 fourteen, and twenty-three of this article: *Provided*, That the
3 declaring owner shall be the record owner of the coal seam, and the
4 declaring lessee shall be the record lessee with the owner's or
5 lessee's source or sources of title recorded prior to recording
6 ~~such~~ the lessee's declaration.

7 (c) The declaration, if filed, shall be acknowledged by ~~such~~
8 the owner or lessee and, in the case of a lessee, may be a part of
9 the coal lease under which the lessee claims. ~~Such~~ The declaration
10 may be in the following language:

11 "DECLARATION OF OIL AND GAS NOTICE"

12 "The undersigned hereby declares:

13 (1) The undersigned is the ('owner' or 'lessee') of one or
14 more coal seams or workable coal beds as those terms are defined in
15 section one of this article.

16 (2) The coal seam(s) or workable coal bed(s) owned or leased
17 partly or wholly by the undersigned lie(s) under the surface of
18 lands described as follows:

19 (Here insert a description legally adequate for a deed,
20 whether by metes and bounds or other locational description, or by
21 title references such as a book and page legally sufficient to
22 stand in lieu of a locational description.)

23 (3) The undersigned desires to be given all notices of oil and
24 gas operations provided by sections twelve, thirteen, fourteen, and

1 twenty-three of this article, addressed as follows:

2 (Here insert the name and mailing address of the undersigned
3 owner or lessee.)

4 _____
5 (Signature)

6 (Here insert an acknowledgment legally adequate for a deed)."

7 The benefits of the foregoing declaration shall be personal to
8 the declaring owner or lessee, and not transferable or assignable
9 in any way.

10 **ARTICLE 6A. NATURAL GAS HORIZONTAL WELL CONTROL ACT.**

11 **§22-6A-1. Short title.**

12 This article shall be known and cited as the "Horizontal Well
13 Act".

14 **§22-6A-2. Legislative findings; declaration of public policy.**

15 (a) The Legislature finds that:

16 (1) The advent and advancement of new and existing
17 technologies and drilling practices have created the opportunity
18 for the efficient development of natural gas contained in
19 underground shales and other geologic formations;

20 (2) These practices have resulted in a new type and scale of
21 natural gas development that utilizes horizontal drilling
22 techniques, allows the development of multiple wells from a single
23 surface location, and may involve fracturing processes that use and
24 produce large amounts of water;

1 (3) In some instances these practices may require the
2 construction of large impoundments for the storage of water or
3 wastewater;

4 (4) Existing laws and regulations developed for conventional
5 oil and gas operations are inadequate to address the potential
6 environmental impacts from these new technologies and practices;
7 and

8 (5) Allowing the responsible development of our state's
9 natural gas resources will enhance the economy of our state and the
10 quality of life for our citizens while assuring the long term
11 protection of the environment.

12 (b) The Legislature declares that the establishment of a new
13 regulatory scheme to address new and advanced natural gas
14 development technologies and drilling practices is in the public
15 interest and should be done in a manner that protects the
16 environment and our economy for current and future generations.

17 (c) The Legislature declares that in view of the urgent need
18 for prompt decision of matters submitted to the secretary under
19 this article, all actions which the secretary, or oil and gas
20 inspectors are required to take under this article, shall be taken
21 as rapidly as practicable, consistent with adequate consideration
22 of the issues involved.

23 **§22-6A-3. Applicability; exceptions; karst formations.**

24 (a) Notwithstanding any other provision of this code to the

1 contrary, the provisions of this article shall apply to any natural
2 gas well that is a horizontal well as defined in section four of
3 this article: *Provided*, That this article shall not apply to or
4 affect any well work permitted for a horizontal well or orders
5 issued regarding horizontal wells prior to the effective date of
6 this article.

7 (b) The secretary shall propose legislative rules and
8 promulgate emergency legislative rules establishing designated
9 geographical regions of the state where the provisions of this
10 section are applicable, and establish the following standards for
11 drilling through Karst formations and for having surface operations
12 and uses on or above Karst formations in these regions. The rules
13 at a minimum shall:

14 (1) Require pre-drilling geophysical testing, visual
15 inspection of the immediate area, and research of governmental
16 local existing resources and studies in order to identify the
17 location of caves and other voids, faults and relevant features in
18 strata;

19 (2) Require pre-drilling visual inspection of the immediate
20 area, and research of governmental and local existing resources and
21 studies in order to identify the location of surface features such
22 as sink holes, and establishing baseline water flow and quality
23 testing requirements for Karst rock formations which serve as a
24 recharge area for a spring that is located within one thousand feet

1 of a drilling site; and

2 (3) Provide any other requirements as necessary for
3 protections as a result of features unique to Karst geology. The
4 rules may require additional water source baseline testing than
5 otherwise required. The rules also may require additional
6 materials or techniques on the surface in response to any surface
7 or subsurface Karst features with a substantial likelihood of
8 affecting or being affected by surface operations. The rules shall
9 allow drilling using only air or water without additives until the
10 surface casing is set and cemented, require during drilling record
11 keeping of "bit drops," loss of air or water pressure and other
12 indications of voids, faults and other relevant features through
13 Karst. The rules shall require testing, such as circulation of
14 water before circulation of cement, to search for or evaluate
15 voids, faults and relevant features before the initial cementing.
16 Where indications of voids, faults and other relevant features in
17 the strata exist, the rules shall also provide for the use of
18 techniques and materials, such as liners, scale of cement additives
19 which clogs up voids, or other special cement additives or
20 techniques sufficient to mitigate the possible effects of those
21 features on the integrity of the well. Where the initial cementing
22 of the surface casing does not result in a return of the cement to
23 the surface, the rules shall also require mitigating measures to
24 further isolate groundwater strata from other strata and from

1 materials used in further drilling and from gas from the target or
2 other formations. The rules shall require a cement bond log run
3 twenty-four hours after the completion of the cement job or its
4 equivalent before additional drilling may continue. Where cement
5 did not return to surface or where the post cementing tests
6 indicate possible problems, the rules may require additional
7 testing and any other mitigation that testing or experience may
8 require to insure the integrity of the well.

9 (c) Because karst geology may require precautions not commonly
10 needed in other parts of the state when exploring for or producing
11 oil and natural gas, the secretary shall review the department's
12 regulatory program to determine whether the rules applicable to oil
13 and gas wells need to be further revised to address drilling in
14 areas of karst geology. If so, the secretary may propose
15 additional legislative rules, including emergency rules if it is
16 deemed necessary, in accordance with the provisions of the
17 administrative procedures act in chapter twenty-nine-a of this
18 code.

19 (d) The secretary may require such additional safeguards as
20 may be necessary to protect this geological formation. Special
21 safeguards may include changing proposed well locations to avoid
22 damage to water resources, special casing programs and additional
23 or special review of drilling procedures.

24 (e) Nothing in this section shall be construed to allow the

1 department to prevent drilling in karst geology.

2 **22-6A-4. Definitions.**

3 (a) All definitions set forth in article six of this chapter
4 apply when those defined terms are used in this article, unless the
5 context in which the term is used clearly requires a different
6 meaning.

7 (b) Unless the context in which used clearly requires a
8 different meaning, as used in this article:

9 (1) "Best management practices" means schedules of activities,
10 prohibitions of practices, maintenance procedures, and other
11 management practices to prevent or reduce pollution of waters of
12 this State. For purposes of this article, best management practices
13 also includes those practices and procedures set out in the Erosion
14 and Sediment Control Manual of the Office of Oil and Gas;

15 (2) "Department" means the department of environmental
16 protection;

17 (3) "Horizontal drilling" means a method of drilling a well
18 for the production of natural gas that is intended to maximize the
19 length of wellbore that is exposed to the formation and in which
20 the wellbore is initially vertical but eventually is curved to
21 become horizontal, or nearly horizontal, to parallel a particular
22 geologic formation;

23 (4) "Horizontal well" means any well site, other than a
24 coalbed methane well, drilled using a horizontal drilling method,

1 and which disturbs 3 acres or more of surface or utilizes more than
2 210,000 gallons of water in any month;

3 (5) "Flowback Recycle Impoundment" means an impoundment used
4 for the retention of flowback and freshwater and into which no
5 other wastes of any kind are placed;

6 (6) "Freshwater Impoundment" means an impoundment used for the
7 retention of fresh water and into which no wastes of any kind are
8 placed;

9 (7) "Impoundment" means a man-made excavation or diked area
10 for the retention of fluids;

11 (8) "Pit" means a man-made excavation or diked area that
12 contains or is intended to contain an accumulation of process waste
13 fluids, drill cuttings or any other liquid substance generated in
14 the development of a horizontal well and which could impact surface
15 or groundwater; and

16 (9) "Secretary" means the Cabinet Secretary of the Department
17 of Environmental Protection as established in article one of this
18 chapter or such other person to whom the secretary has delegated
19 authority or duties pursuant to sections six or eight, article one
20 of this chapter.

21 **§22-6A-5. Application of article six of this chapter to horizontal**
22 **wells subject to this article.**

23 To the extent that horizontal wells governed by this article
24 are similar to conventional oil and gas wells regulated under

1 article six of this chapter. Any conflict between the provisions of
2 article six and the provisions of this article shall be resolved in
3 favor of this article. The following sections of article six of
4 this chapter are hereby incorporated by reference in this article:

5 (a) The provisions of section three, article six of this
6 chapter relating to the findings and orders of inspectors
7 concerning violations, the determination of reasonable time for
8 abatement, extensions of time for abatement, special inspections,
9 notice of findings and orders.

10 (b) The provisions of section four, article six of this
11 chapter providing for the review of findings and orders by the
12 secretary, special inspections, and applications for annulment or
13 revision of orders by the secretary.

14 (c) The provisions of section five, article six of this
15 chapter relating to the requirements for findings, orders and
16 notices, notice to the operator of findings and orders, and
17 judicial review of final orders of the secretary.

18 (d) The provisions of section seven, article six of this
19 chapter relating to the issuance of water pollution control
20 permits, the powers and duties of the secretary related thereto,
21 and penalties for violations of the same.

22 (e) The provisions of section eight, article six of this
23 chapter relating to the prohibition of permits for wells on flat
24 well royalty leases and requirements for permits.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

(f) The provisions of section twelve, article six of this chapter pertaining to plats prerequisite to drilling or fracturing wells, the preparation and contents thereof, notice furnished to coal operators, owners or lessees, the issuance of permits, and required performance bonds, with the following exceptions:

(1) Under subsection (a), section twelve, article six of this chapter the plat also shall identify all surface tract boundaries within the scope of the plat.

(2) Under subsection (b), section twelve, article six of this chapter any reference to a time period shall be thirty days in lieu of fifteen days.

(g) The provisions of section thirteen, article six of this chapter providing for notice of the operator's intention to fracture wells, with the exception that under subsection (c) of section thirteen, article six of this chapter the applicable time periods shall be thirty days in lieu of fifteen days.

(h) The provisions of section fifteen, article six of this chapter pertaining to objections to proposed deep well drilling sites above seam or seams of coal, with the exception that the applicable time for filing objections shall be within thirty days of receipt by the secretary of the required plat and/or notice in lieu of fifteen days.

(i) The provisions of section seventeen, article six of this

1 chapter pertaining to drilling of shallow gas wells, notice to be
2 provided to the chair of the review board, orders issued by the
3 review board, and permits issued for such drilling, with the
4 exception that the applicable time for filing objections shall be
5 thirty days from the date of receipt by the secretary of the
6 required plat and notice in lieu of fifteen days.

7 (j) The provisions of section eighteen, article six of this
8 chapter providing for protective devices for when a well penetrates
9 one or more workable coal beds and when gas is found beneath or
10 between workable coal beds.

11 (k) The provisions of section nineteen, article six of this
12 chapter providing for protective devices during the life of the
13 well and for dry or abandoned wells.

14 (l) The provisions of section twenty, article six of this
15 chapter providing for protective devices when a well is drilled
16 through the horizon of a coalbed from which the coal has been
17 removed.

18 (m) The provisions of section twenty-one, article six of this
19 chapter requiring the installation of fresh water casings.

20 (n) The provisions of section twenty-two, article six of this
21 chapter relating to the filing of a well completion report and the
22 contents thereof, confidentiality and permitted use, and the
23 secretary's authority to promulgate rules.

24 (o) The provisions of section twenty-seven, article six of

1 this chapter regarding a cause of action for damages caused by an
2 explosion.

3 (p) The provisions of section twenty-eight, article six of
4 this chapter relating to supervision by the secretary over drilling
5 and reclamation operations, the filing of complaints, hearings on
6 the same, and appeals.

7 (q) The provisions of section twenty-nine, article six of this
8 chapter providing for the Operating Permit and Processing Fund, the
9 oil and gas reclamation fund, and associated fees, with the
10 exception that in the first paragraph of subsection (a), section
11 twenty-nine, article six of this chapter the fees to be credited to
12 the Oil and Gas Operating Permit and Processing Fund shall be the
13 permit fees collected pursuant to section seven of this article.

14 (r) The provisions of section thirty-one, article six of this
15 chapter providing for preventing waste of gas, plans of operation
16 for wasting gas in the process of producing oil and the secretary's
17 rejection thereof.

18 (s) The provisions of section thirty-two, article six of this
19 chapter pertaining to the right of an adjacent owner or operator to
20 prevent waste of gas and the recovery of costs.

21 (t) The provisions of section thirty-three, article six of
22 this chapter relating to circuit court actions to restrain waste.

23 (u) The provisions of section thirty-six, article six of this
24 chapter providing for the declaration of oil and gas notice by

1 owners and lessees of coal seams and setting out the form of such
2 notice, with the exception that the owner or lessee of coal seams
3 shall be entitled only to the notices provided in sections twelve
4 and thirteen, of article six of this chapter.

5 (v) The provisions of section thirty-nine, article six of this
6 chapter relating to petitions for injunctive relief.

7 (w) The provisions of section forty, article six of this
8 chapter relating to appeals from orders issuing or refusing to
9 issue a permit to drill or fracture, and the procedure therefore.

10 Notwithstanding any other provision of this code to the
11 contrary, no provision of article six of this chapter shall apply
12 to horizontal wells subject to this article except as expressly
13 incorporated by reference in this article.

14 **§22-6A-6. Secretary of Department of Environmental Protection;**
15 **powers and duties.**

16 The secretary is vested with jurisdiction over all aspects of
17 this article, including, but not limited to, the following powers
18 and duties:

19 (1) To control and exercise regulatory authority over all gas
20 operations regulated by this article;

21 (2) To utilize any oil and gas inspectors or other employees
22 of the Office of Oil and Gas in the enforcement of the provisions
23 of this article;

24 (3) To propose any necessary legislative rules, in accordance

1 with the provisions of chapter twenty-nine-a of this code to
2 implement the provisions of this article; and

3 (4) To make investigations and inspections necessary to ensure
4 compliance with the provisions of this article.

5 (5) Except for the duties and obligations conferred by statute
6 upon the shallow gas well review board pursuant to article eight,
7 chapter twenty-two-c of this code, the coalbed methane review board
8 pursuant to article twenty-one of this chapter, and the oil and gas
9 conservation commission pursuant to article nine, chapter twenty-
10 two-c of this code, the secretary has sole and exclusive authority
11 to regulate the permitting, location, spacing drilling, operation
12 and plugging of oil and gas wells and production operations within
13 the state.

14 **§22-6A-7. Horizontal well permit required; permit fee; application;**
15 **soil erosion control plan; well site safety plan; site**
16 **construction plan; water management plan; permit fee;**
17 **installation of permit number; suspension of a permit.**

18 (a) It is unlawful for any person to commence any well work,
19 including site preparation work which involves any disturbance of
20 land, for a horizontal well without first securing from the
21 secretary a well work permit pursuant to this article.

22 (b) Every permit application filed under this section shall be
23 on such form as may be prescribed by the secretary, shall be
24 verified, and shall contain the following information:

1 (1) The names and addresses of (i) the well operator, (ii) the
2 agent required to be designated under subsection (h) of this
3 section, and (iii) every person whom the applicant must notify
4 under any section of this article, together with a certification
5 and evidence that a copy of the application and all other required
6 documentation has been delivered to all such persons;

7 (2) The name and address of every coal operator operating coal
8 seams under the tract of land on which the well is or may be
9 located, and the coal seam owner of record and lessee of record
10 required to be given notice by subsection (f), section five of this
11 article, if any, if said owner or lessee is not yet operating said
12 coal seams;

13 (3) The number of the well or such other identification as the
14 secretary may require;

15 (4) The well work for which a permit is requested;

16 (5) The approximate total depth to which the well is to be
17 drilled or deepened, or the actual depth if the well has been
18 drilled; the proposed angle and direction of the well; the actual
19 depth or the approximate depth at which the well to be drilled
20 deviates from vertical, the angle and direction of the non-vertical
21 well bore until the well reaches its total target depth or its
22 actual final depth, and the length and direction of any actual or
23 proposed horizontal lateral or well bore;

24 (6) Each formation in which the well will be completed if

1 applicable;

2 (7) A description of any means used to stimulate the well;

3 (8) If the proposed well work will require casing or tubing to
4 be set, the entire casing program for the well, including the size
5 of each string of pipe, the starting point and depth to which each
6 string is to be set, and the extent to which each such string is to
7 be cemented;

8 (9) If the proposed well work is to convert an existing well,
9 all information required by this section, all formations from which
10 production is anticipated and any plans to plug any portion of the
11 well;

12 (10) If the proposed well work is to plug or replug the well,
13 all information necessary to demonstrate compliance with the
14 legislative rules promulgated by the secretary in accordance with
15 section thirteen of this article;

16 (11) If the proposed well work is to stimulate a horizontal
17 well, all information necessary to demonstrate compliance with the
18 requirements of subsection (g), section five of this article;

19 (12) The erosion and sediment control plan required under
20 subsection (c) of this section for applications for permits to
21 drill;

22 (13) A well site safety plan to address proper safety measures
23 to be employed for the protection of persons on the site as well as
24 the general public. The plan shall encompass all aspects of the

1 operation, including the actual well work for which the permit was
2 obtained, completion activities, and production activities and
3 shall provide an emergency point of contact for the well operator.
4 The well operator shall provide a copy of the well site safety to
5 the local emergency planning committee established pursuant to
6 section seven, article five-a, chapter fifteen of this code, for
7 the emergency planning district in which the well work will occur
8 at least seven days before commencement of well work or site
9 preparation work that involves any disturbance of land; and

10 (14) Any other relevant information which the secretary may
11 reasonably require.

12 (c) (1) An erosion and sediment control plan shall accompany
13 each application for a well work permit under this article. The
14 plan shall contain methods of stabilization and drainage, including
15 a map of the project area indicating the amount of acreage
16 disturbed. The erosion and sediment control plan shall meet the
17 minimum requirements of the West Virginia Erosion and Sediment
18 Control Manual as adopted and from time to time amended by the
19 department. The erosion and sediment control plan shall become part
20 of the terms and conditions of any well work permit that is issued
21 pursuant to this article and the provisions of the plan shall be
22 carried out where applicable in the operation. The erosion and
23 sediment control plan shall set out the proposed method of
24 reclamation which shall comply with the requirements of section

1 fourteen of this article.

2 (2) For horizontal well sites that disturb 3 acres or more of
3 surface, excluding pipelines, gathering lines, and roads, the
4 erosion and sediment control plan submitted in accordance with this
5 section shall be certified by a registered professional engineer.

6 (d) For well sites that disturb 3 acres or more of surface,
7 excluding pipelines, gathering lines, and roads, the operator shall
8 submit a site construction plan that shall be certified by a
9 registered professional engineer and contains information that the
10 secretary may require by rule.

11 (e) In addition to the other requirements of this section, if
12 the drilling, fracturing or stimulating of the horizontal well
13 requires the use of water obtained by withdrawals from waters of
14 this state in amounts that exceed 210,000 gallons during any month,
15 the application for a well work permit shall include a water
16 management plan, which shall include the following information:

17 (1) The type of water source, such as surface or groundwater,
18 the county of each source to be used by the operation for water
19 withdrawals, and the latitude and longitude of each anticipated
20 withdrawal location;

21 (2) The anticipated volume of each water withdrawal;

22 (3) The anticipated months when water withdrawals will be
23 made;

24 (4) The planned management and disposition of wastewater after

1 completion from fracturing, refracturing, stimulation, and
2 production activities;

3 (5) A listing of the anticipated additives that may be used in
4 water used for fracturing or stimulating the well. Upon well
5 completion, a listing of the additives that were actually used in
6 the fracturing or stimulating of the well shall be submitted as
7 part of the completion report required by subsection (n), section
8 five of this article;

9 (6) For all surface water withdrawals, a water resources
10 protection plan that includes the information requested in
11 subdivisions (1) through (5) of this subsection and includes
12 documentation of measures that will be taken to allow the State to
13 manage the quantity of its waters for present and future use and
14 enjoyment and for the protection of the environment. The plan
15 shall include the following:

16 (A) Identification of the current designated and existing
17 water uses, including any public water intakes within one mile
18 downstream of the withdrawal location;

19 (B) For surface waters, a demonstration, using methods
20 acceptable to the secretary, that sufficient in-stream flow will be
21 available immediately downstream of the point of withdrawal. A
22 sufficient in-stream flow is maintained when a pass-by flow that is
23 protective of the identified use of the stream is preserved
24 immediately downstream of the point of withdrawal; and

1 (C) Methods to be used for surface water withdrawal to
2 minimize adverse impact to aquatic life.

3 (7) This subsection is intended to be consistent with and does
4 not supersede, revise, repeal or otherwise modify articles eleven,
5 twelve or twenty-six of this chapter and does not revise, repeal or
6 otherwise modify the common law doctrine of riparian rights in West
7 Virginia law.

8 (f) An application may propose and a permit may approve two or
9 more activities defined as well work, however a separate permit
10 must be obtained for each well drilled.

11 (g) The application for a permit under this section shall be
12 accompanied by the applicable bond as required by section fifteen
13 of this article, the applicable plat required by subsection (f),
14 section five of this article, and a permit fee of \$10,000 for the
15 initial horizontal well drilled at a location and a permit fee of
16 \$5,000 for each additional well drilled on a single well pad at the
17 same location. However, the secretary may propose rules for
18 legislative approval in accordance with the provisions of article
19 three, chapter twenty-nine-a of this code to increase the permit
20 fees authorized by this subsection.

21 (h) The well operator named in the application shall designate
22 the name and address of an agent for the operator who shall be the
23 attorney-in-fact for the operator and who shall be a resident of
24 the state of West Virginia upon whom notices, orders or other

1 communications issued pursuant to this article or article eleven of
2 chapter twenty-two may be served, and upon whom process may be
3 served. Every well operator required to designate an agent under
4 this section shall, within 5 days after the termination of such
5 designation, notify the secretary of such termination and designate
6 a new agent.

7 (i) The well owner or operator shall install the permit number
8 as issued by the secretary and a contact telephone number for the
9 operator in a legible and permanent manner to the well upon
10 completion of any permitted work. The dimensions, specifications,
11 and manner of installation shall be in accordance with the rules of
12 the secretary.

13 (j) The secretary may waive the requirements of this section
14 and sections eight, ten and eleven of in any emergency situation,
15 if the secretary deems such action necessary. In such case the
16 secretary may issue an emergency permit which shall be effective
17 for not more than 30 days, unless reissued by the secretary.

18 (k) The secretary shall deny the issuance of a permit if the
19 secretary determines that the applicant has committed a substantial
20 violation of a previously issued permit for a horizontal well,
21 including the applicable erosion and sediment control plan
22 associated with the previously issued permit, or a substantial
23 violation of one or more of the rules promulgated under this
24 article, and has failed to abate or seek review of the violation

1 within the time prescribed by the secretary pursuant to the
2 provisions of subsections (a) and (b), section five of this article
3 and the rules promulgated hereunder, which time may not be
4 unreasonable.

5 (l) In the event the secretary finds that a substantial
6 violation has occurred and that the operator has failed to abate or
7 seek review of the violation in the time prescribed, the secretary
8 may suspend the permit on which said violation exists, after which
9 suspension the operator shall forthwith cease all well work being
10 conducted under the permit. However, the secretary may reinstate
11 the permit without further notice, at which time the well work may
12 be continued. The secretary shall make written findings of any such
13 suspension and may enforce the same in the circuit courts of this
14 state. The operator may appeal a suspension pursuant to the
15 provisions of subsection (w), section five of this article. The
16 secretary shall make a written finding of any such determination.

17 (m) Upon receipt of notice from the Division of Highways that
18 the operator has been found in violation of the operator's letter
19 of certification as required in section twenty-one of this article,
20 the Secretary shall suspend the operator's permit, prohibit
21 initiation or further production of gas or oil from the well
22 subject to the letter of certification, and deny all other pending
23 permits of the operator until the operator provides proof that the
24 violation of the letter of certification has been discharged by the

1 Division of Highways.

2 **§22-6A-8. Review of application; issuance of permit in the absence**
3 **of objections; performance standards; copy of permits to**
4 **county assessor.**

5 (a) The secretary shall review each application for a well
6 work permit and shall determine whether or not a permit shall be
7 issued.

8 (b) No permit shall be issued less than 30 days after the
9 filing date of the application for any well work except plugging or
10 replugging; and no permit for plugging or replugging shall be
11 issued less than 5 days after the filing date of the application
12 except a permit for plugging or replugging a dry hole: *Provided,*
13 *That if the applicant certifies that all persons entitled to notice*
14 *of the application under the provisions of this article have been*
15 *served in person or by certified mail, return receipt requested,*
16 *with a copy of the well work application, including the erosion and*
17 *sediment control plan, if required, and the plat required by*
18 *section seven of this article, and further files written statements*
19 *of no objection by all such persons, the secretary may issue the*
20 *well work permit at any time.*

21 (c) Prior to the issuance of any permit the director shall
22 ascertain from the Executive Director of Workforce West Virginia
23 and the Insurance Commissioner whether the applicant is in not in
24 default pursuant to the provisions of section six-c, article two,

1 chapter twenty-one-a of this code, and in compliance with section
2 five, article two, chapter twenty-three of this code, with regard
3 to any required subscription to the Unemployment Compensation Fund
4 or to the Workers' Compensation Fund, the payment of premiums and
5 other charges to the fund, the timely filing of payroll reports and
6 the maintenance of adequate deposits. If the applicant is
7 delinquent or defaulted, or has been terminated by the executive
8 director or the Insurance Commissioner, the permit may not be
9 issued until the applicant returns to compliance or is restored by
10 the executive director or the Insurance Commissioner under a
11 reinstatement agreement: *Provided*, That in all inquiries the
12 Executive Director of Workforce West Virginia and the Insurance
13 Commissioner shall make response to the Department of Environmental
14 Protection within fifteen calendar days; otherwise, failure to
15 respond timely is considered to indicate the applicant is in
16 compliance and the failure will not be used to preclude issuance of
17 the permit.

18 (d) The secretary may cause such inspections to be made of the
19 proposed well work location as necessary to assure adequate review
20 of the application. The permit shall not be issued, or shall be
21 conditioned including conditions with respect to the location of
22 the well and access roads prior to issuance if the director
23 determines that:

24 (1) The proposed well work will constitute a hazard to the

1 safety of persons;

2 (2) The plan for soil erosion and sediment control is not
3 adequate or effective;

4 (3) Damage would occur to publicly owned lands or resources;
5 or

6 (4) The proposed well work fails to protect fresh water
7 sources or supplies.

8 (e) In addition to the considerations set forth in subsection
9 (d) of this section, in determining whether a permit should be
10 issued, issued with conditions, or denied, the Secretary shall also
11 consider:

12 (A) The proximity of the drilling location to any existing
13 public or private water supply source, and the extent to which the
14 well's location and proposed drilling activities potentially
15 threaten public and private water sources;

16 (B) The adequacy of the proposed well protections, including
17 emergency response measures which are proposed in the event of a
18 spill or impoundment overflow or pit failure, to reasonably protect
19 the integrity of such public and private water supplies when the
20 proposed drilling activities are to be conducted within 2500 feet
21 of such wells and springs, or within one mile upstream of any
22 public water intake on a water course.

23 (C) The proposed well location's proximity to municipalities
24 or densely populated or urban areas, and the proposed well

1 location's impact on those areas.

2 (D) Any unresolved objections raised by the surface owner on
3 which the drilling activities or land disturbances, or the surface
4 owner of any immediately adjacent properties or any water purveyor.

5 (E) In cases where the well location restrictions set forth in
6 section twelve of this article have not been complied with, and the
7 affected surface owner or water purveyor does not consent to a
8 waiver of those location restrictions, the Secretary shall consider
9 the impact of enforcing the distance restriction on the mineral
10 rights owner's right to produce or share in the oil or gas
11 underlying the surface tract. The Secretary shall also consider
12 whether additional measures, facilities or practices should be
13 employed during well site construction, drilling and operations to
14 insure the safety and protection of affected persons and property
15 if a variance to the well location restrictions were granted by the
16 Secretary.

17 (F) The permit's proposed water use plan, and its potential
18 impact on the water table and water supply sources.

19 (G) The permit's proposed plans for collection, storage,
20 recycling, reuse and or disposal of returns, discharges or waste
21 from the well during the drilling or stimulation activities.

22 (H) The impact of the proposed well on public resources,
23 including, but not limited to, the following:

24 (i) Publicly owned parks, forests, gamelands and wildlife

1 areas.

2 (ii) National or State scenic rivers.

3 (iii) National natural landmarks.

4 (iv) Habitats of rare and endangered flora and fauna and other
5 critical communities.

6 (v) Historical or archaeological sites listed on the Federal
7 or State list of historic places.

8 (I) The Applicant's safety record and record of compliance
9 with well reporting requirements, well site restoration and
10 reclamation requirements, bonding requirements and highway
11 maintenance agreements for other well permits that have been issued
12 in this state.

13 (J) Whether the well site for which a permit is requested is
14 in violation of the provisions of this act, or any other applicable
15 environmental statute, rule or regulation.

16 (f) The director shall promptly review all comments filed. If
17 after review of the application and all comments received, the
18 application for a well work permit is approved, and no timely
19 objection or comment has been filed with the director or made by
20 the director under the provisions of section ten and eleven of this
21 article, the permit shall be issued, with conditions, if any.
22 Nothing in this section shall be construed to supersede the
23 provisions of section seven or subsections (f) through (i), section
24 five of this article.

1 (g) Each permit issued by the secretary pursuant to this
2 article shall require the operator at a minimum to:

3 (1) Adopt measures consistent with best management practices
4 in order to control fugitive particulate matter;

5 (2) Plug all wells in accordance with the requirements of this
6 article and the rules promulgated pursuant thereto when such wells
7 become abandoned;

8 (3) With respect to disposal of cuttings at the well site,
9 stabilize all waste pits, including the use of impervious
10 materials, if necessary, to assure that any leachate therefrom will
11 not degrade surface or groundwaters below water quality standards
12 established pursuant to applicable federal and State law and that
13 the site is stabilized and revegetated according to the provisions
14 of this article and the rules promulgated thereunder;

15 (4) Grade, terrace and plant, seed or sod the area disturbed
16 that is not required in production of the horizontal well where
17 necessary to bind the soil and prevent substantial erosion and
18 sedimentation;

19 (5) Protect off-site areas from damages that may result from
20 horizontal drilling operations;

21 (6) Take action in accordance with industry standards to
22 minimize fire hazards and other conditions which constitute a
23 hazard to health and safety of the public;

24 (7) Protect the quantity and the quality of water in surface

1 and groundwater systems both during and after drilling operations
2 and during reclamation by: (A) Withdrawing water from surface
3 waters of the State by methods deemed appropriate by the secretary,
4 so as to maintain sufficient in-stream flow immediately downstream
5 of the withdrawal location. In no case shall an operator withdraw
6 water from ground or surface waters at volumes beyond which the
7 waters can sustain; (B) Casing, sealing or otherwise managing wells
8 to keep returned fluids from entering ground and surface waters;
9 (C) Conducting oil and gas operations so as to prevent, to the
10 extent possible using the best management practices, additional
11 contributions of suspended or dissolved solids to streamflow or
12 runoff outside the permit area, but in no event shall the
13 contributions be in excess of requirements set by applicable State
14 or federal law; and (D) Identify all water supply wells to the
15 Office of Oil and Gas that are required to be permitted by the
16 Bureau for Public Health under 64 CSR 19. All drinking water wells
17 within 2,500 feet of the water supply well shall be flow and
18 quality tested by the operator upon request of the drinking well
19 owner prior to operating the water supply well. The secretary
20 shall propose legislative rules to identify appropriate methods for
21 testing and water flow and quality.

22 (8) The construction of new roads or the improvement or use of
23 existing roads shall be conducted in accordance with the standards
24 established pursuant to this article or the rules promulgated

1 thereunder for such effects which result from oil and gas
2 operations; and

3 (9) In addition to the other requirements of this subsection,
4 an operator proposing to drill any horizontal well requiring the
5 withdrawal of more than 210,000 gallons in a month shall have the
6 following requirements added to its permit:

7 (A) Identification of water withdrawal locations. Within 48
8 hours prior to the withdrawal of water, the operator shall identify
9 to the Secretary the location of withdrawal by latitude and
10 longitude and verify that sufficient flow exists to protect
11 designated uses of the stream. The operator shall use methods
12 deemed appropriate by the secretary to determine if sufficient flow
13 is available and must check flows on a daily basis for the duration
14 of the withdrawal. Any variation from the methods previously
15 approved by the secretary for determining if sufficient flow is
16 available must be requested in writing by the operator.

17 (B) Signage for water withdrawal locations. All water
18 withdrawal locations and facilities identified in the water
19 management plan shall be identified with a sign that identifies
20 that the location is a water withdrawal point, the name and
21 telephone number of the operator, and the permit numbers(s) for
22 which the water withdrawn will be utilized.

23 (C) Recordkeeping and reporting. For all water used for
24 hydraulic fracturing of horizontal wells and for flowback water

1 from hydraulic fracturing activities and produced water from
2 production activities from horizontal wells, an operator shall
3 comply with the following record keeping and reporting
4 requirements:

5 (i) For production activities, the following information shall
6 be recorded and retained by the well operator:

7 (I) The quantity of flowback water from hydraulic fracturing
8 the well;

9 (II) The quantity of produced water from the well; and

10 (III) The method of management or disposal of the flowback and
11 produced water.

12 (ii) For transportation activities, the following information
13 shall be recorded and maintained by the operator:

14 (I) The quantity of water transported;

15 (II) The collection and delivery or disposal locations of
16 water; and

17 (III) The name of the water hauler.

18 (iii) The information maintained pursuant to this subdivision
19 shall be available for inspection by the department along with
20 other required permits and records and maintained for three years
21 after the water withdrawal activity.

22 (iv) This subdivision is intended to be consistent with and
23 does not supersede, revise, repeal or otherwise modify articles
24 eleven, twelve or twenty-six of this chapter and does not revise,

1 repeal or otherwise modify the common law doctrine of riparian
2 rights in West Virginia law.

3 (h) The secretary shall mail a copy of the permit as issued or
4 a copy of the order denying a permit to any person who submitted
5 comments to the director concerning the permit and requested a
6 copy.

7 (i) Upon the issuance of any permit pursuant to the provisions
8 of this article, the secretary shall transmit a copy of such permit
9 to the office of the assessor for the county in which the well is
10 located.

11 **§22-6A-9. Certificate of approval required for large impoundment**
12 **construction; certificate of approval and annual registration**
13 **fees; application required to obtain certificate; term of**
14 **certificate; revocation or suspension of certificates;**
15 **appeals; farm ponds.**

16 (a) It is unlawful for any person to place, construct,
17 enlarge, alter, repair, remove or abandon any freshwater
18 impoundment or flowback recycle impoundment with capacity of
19 greater than 210,000 gallons used in association with any
20 horizontal well operation until he or she has first secured from
21 the secretary a certificate of approval for the same: *Provided,*
22 That routine repairs that do not affect the safety of the
23 impoundment are not subject to the application and approval
24 requirements. A separate application for a certificate of approval

1 must be submitted by a person for each impoundment he or she
2 desires to place, construct, enlarge, alter, repair, remove or
3 abandon, but one application may be valid for more than one
4 impoundment involved in a single project, which involves two or
5 more well pads.

6 (b) The application fee for placement, construction,
7 enlargement, alteration, repair or removal of an impoundment
8 pursuant to this section is \$300, and such fee shall accompany the
9 application for certificate of approval. Operators holding
10 certificates of approval shall be assessed an annual registration
11 fee of \$100, which shall be valid for more than one impoundment
12 involved in a single project, which involves two or more well pads.

13 (c) Any certificate of approval required by this section shall
14 be issued or denied no later than sixty days from the submission of
15 an application containing the information required by this section.
16 However, if the application for a certificate of approval is
17 submitted with the application for a horizontal well permit, the
18 certificate shall be issued or denied no later than thirty days
19 from the submission of the permit application.

20 (d) The initial term of a certificate of approval issued
21 pursuant to this section shall be one year. Existing certificates
22 of approval shall be extended for one year upon receipt of the
23 annual registration fee, an inspection report, a monitoring and
24 emergency action plan, and a maintenance plan: *Provided*, That where

1 an approved, up-to-date inspection report, monitoring and emergency
2 action plan, and maintenance plan are on file with the department,
3 and where no outstanding violation(s) of the requirements of the
4 certificate of approval or any plan submitted pursuant to this
5 article related to the impoundment exist, then the certificate of
6 approval shall be extended without resubmission of the foregoing
7 documents upon receipt of the annual registration fee.

8 (e) Every application for a certificate of approval shall be
9 made in writing on a form prescribed by the secretary and shall be
10 signed and verified by the applicant. The application shall include
11 a monitoring and emergency action plan and a maintenance plan, the
12 required contents of which shall be established by the secretary by
13 legislative rule. The application shall contain and provide
14 information that may reasonably be required by the secretary to
15 administer the provisions of this article.

16 (f) Plans and specifications for the placement, construction,
17 erosion and sediment control, enlargement, alteration, repair or
18 removal and reclamation of impoundments shall be the charge of a
19 registered professional engineer licensed to practice in West
20 Virginia. Any plans or specifications submitted to the department
21 shall bear the seal of a registered professional engineer.
22 *Provided,* That when a flowback recycle impoundment will be used to
23 store flowback water, the impoundment shall be designed and
24 constructed using a single liner system.

1 (g) Each certificate of approval issued by the secretary
2 pursuant to the provisions of this article may contain other terms
3 and conditions as the secretary may prescribe.

4 (h) The secretary may revoke or suspend any certificate of
5 approval whenever the secretary determines that the impoundment for
6 which the certificate was issued constitutes an imminent danger to
7 human life or property. If necessary to safeguard human life or
8 property, the secretary may also amend the terms and conditions of
9 any certificate by issuing a new certificate containing the revised
10 terms and conditions.

11 (1) Before any certificate of approval is amended, suspended,
12 or revoked by the secretary without the consent of the operator
13 holding the certificate, the secretary shall hold a hearing in
14 accordance with the provisions of article five, chapter twenty-
15 nine-a of this code.

16 (2) Any person adversely affected by an order entered
17 following this hearing has the right to appeal to the Environmental
18 Quality Board pursuant to the provisions of article one, chapter
19 twenty-two-b of this code.

20 (i) Upon expiration of the certificate of approval, or upon
21 its revocation by the secretary, the operator shall, within 60
22 days, fill all impoundments that are not required or allowed by
23 state or federal law or rule or agreement between the operator and
24 the surface owner that allows the impoundment to remain open for

1 the use and benefit of the surface owner and reclaim the site with
2 the approved erosion and sediment control plan.

3 (j) This section shall not apply to:

4 (A) Farm ponds constructed by the operator with the written
5 consent of the surface owner, which will be used after completion
6 of the drilling activity primarily for agricultural purposes,
7 including without limitation livestock watering, irrigation,
8 retention of animal wastes and fish culture. Any impoundment that
9 is intended to be left permanent as a farm pond under this
10 subdivision shall meet the requirements set forth by the United
11 States Department of Agriculture's Natural Resources Conservation
12 Service "Conservation Practice Standard - Ponds" (Code 378).

13 (B) Farm ponds subject to certificates of approval under
14 article fourteen of this chapter.

15 (k) The secretary is authorized to propose rules for
16 legislative approval in accordance with the provisions of article
17 three, chapter twenty-nine-a of this code, necessary to effectuate
18 the provisions of this section.

19 **§22-6A-10. Notice to property owners.**

20 (a) Prior to filing a permit application, the operator shall
21 provide notice to the surface owner of at least seventy-two hours
22 but no more than forty-five days prior to entering the surface
23 tract to conduct any plat surveys required pursuant to this
24 article.

1 (b) No later than the filing date of the application, the
2 applicant for a permit for any well work or for a certificate of
3 approval for the construction of an impoundment as required by this
4 article shall deliver, by personal service or by registered mail or
5 by any method of delivery that requires a receipt or signature
6 confirmation, copies of the application, well plat, and erosion and
7 sediment control plan required by section seven of this article to
8 each of the following persons:

9 (1) The owners of record of the surface of the tract on which
10 the well is or is proposed to be located;

11 (2) The owners of record of the surface tract or tracts
12 overlying the oil and gas leasehold being developed by the proposed
13 well work, if such surface tract is to be utilized for roads or
14 other land disturbance as described in the erosion and sediment
15 control plan submitted pursuant to subsection (c), section seven of
16 this article;

17 (3) The coal owner, operator or lessee, in the event the tract
18 of land on which the well proposed to be drilled is located is
19 known to be underlain by one or more coal seams;

20 (4) The owners of record of the surface tract or tracts
21 overlying the oil and gas leasehold being developed by the proposed
22 well work, if such surface tract is to be utilized for the
23 placement, construction, enlargement, alteration, repair, removal
24 or abandonment of any impoundment as described in section nine of

1 this article;

2 (5) The owners of record of the surface of any tract
3 immediately adjacent to any tract where the well work is to be
4 conducted or other land disturbance is to occur; and

5 (6) Any surface owner or water purveyor who is known to the
6 applicant to have a water well, spring or water supply source
7 located within 2,500 feet of the center of the well pad which is
8 used to provide water for consumption by humans or domestic
9 animals.

10 (7) The operator of any storage field within which the
11 proposed well work activity is to take place.

12 (c) If more than three tenants in common or other co-owners of
13 interests described in subsection (b) of this section hold
14 interests in such lands, the applicant may serve the documents
15 required upon the person described in the records of the sheriff
16 required to be maintained pursuant to section eight, article one,
17 chapter eleven-a of this code.

18 (d) With respect to immediately adjacent surface landowners,
19 surface landowners or water purveyors with water supplies within
20 2,500 feet of the center of the proposed well pad location,
21 notification shall be made on forms and in a manner prescribed by
22 the Secretary sufficient to identify, for such persons, the rights
23 afforded them under sections eleven and twelve of this article, and
24 the advisability of taking their own prealteration survey.

1 (e) Prior to filing an application for a permit for a
2 horizontal well under this article, the applicant shall cause to
3 publish in the county in which the well is located or is proposed
4 to be located a Class II legal advertisement as described in
5 section two, article three, chapter fifty-nine of this code,
6 containing such notice and information as the secretary shall
7 prescribe by rule, with the first publication date being at least
8 ten days prior to the filing of the permit application: *Provided,*
9 That all owners occupying the tracts where the well work is or is
10 proposed to be located on the filing date of the permit application
11 shall receive actual service of the documents required by
12 subsection (b) of this section.

13 (f) Materials served upon persons described in subsections (b)
14 and (c) of this section shall contain a statement of the methods
15 and time limits for filing comments, who may file comments, the
16 name and address of the secretary for the purpose of filing
17 comments and obtaining additional information, and a statement that
18 such persons may request, at the time of submitting comments,
19 notice of the permit decision and a list of persons qualified to
20 test water as provided by the Office of Oil and Gas.

21 (g) Any person entitled to submit comments shall also be
22 entitled to receive from the secretary a copy of the permit as
23 issued or a copy of the order modifying or denying the permit if
24 such person requests receipt of them as a part of the comments

1 concerning the permit application.

2 (h) The surface owners described in subdivisions (1), (2) and
3 (4), subsection (b) of this section, and the coal owner, operator
4 or lessee described in subdivision (3) of said subsection shall
5 also be entitled to receive notice within seven days but no less
6 than two days before commencement that well work or site
7 preparation work that involves any disturbance of land is expected
8 to commence.

9 (i) Persons entitled to notice may contact the department to
10 ascertain the names and locations of water testing laboratories in
11 the subject area capable and qualified to test water supplies in
12 accordance with standard accepted methods. In compiling that list
13 of names the department shall consult with the state Bureau of
14 Public Health and local health departments.

15 (j) (1) Prior to conducting any seismic activity for seismic
16 exploration for natural gas to be extracted using horizontal
17 drilling methods, the company or person performing the activity
18 must provide notice to Miss Utility of West Virginia Inc. and to
19 all surface owners, mineral owners, and storage field operators on
20 whose property blasting, percussion or other seismic-related
21 activities will occur or whose property interests are within the
22 geographic area encompassed by the seismic study.

23 (2) The notice shall be provided at least three days prior to
24 commencement of the seismic activity.

1 (3) The notice shall also include a reclamation plan in
2 accordance with the erosion and sediment control manual that
3 provides for the reclamation of any areas disturbed as a result of
4 the seismic activity, including filling of shotholes utilized for
5 blasting.

6 (4) Nothing in this subdivision shall be construed to decide
7 questions as to whether seismic activity may be secured by mineral
8 owners, surface owners or other ownership interests.

9 **§22-6A-11. Procedure for filing comments; certification of notice;
10 procedures for considering objections and protests; public
11 hearing option; issues to be considered; public notice and
12 hearing procedures.**

13 (a) All persons described in subsections (b) and (c), section
14 ten of this article may file comments with the Secretary as to the
15 location or construction of the applicant's proposed well work
16 within thirty days after the application is filed with the
17 Secretary. The public comment period shall end no earlier than 30
18 days after the date of the second publication required under
19 subsection (e), section ten of this article.

20 (b) The applicant shall tender proof of publication and
21 certify to the Secretary that the individual and public notice
22 requirements of section ten of this article have been completed by
23 the applicant. Such certification of individual notice to the
24 person may be made by affidavit of personal service, the return

1 receipt card, or other postal receipt for certified mailing.

2 (c) (1) The Secretary shall review and consider the comments
3 filed to the permit application. The Secretary shall notify the
4 applicant of the character of the objections made by the public
5 commentators, no later than fifteen days after the close of the
6 public comment period or forty-five days after the date of the
7 permit application, whichever is later.

8 (2) The objections of the affected coal operators and coal
9 seam owners and lessees shall be addressed through the processes
10 and procedures that exist under sections fifteen, sixteen and
11 seventeen of article six of this chapter, as applicable.

12 (3) The applicant and the objecting surface property owners
13 and the water purveyors may agree on the location of the drilling
14 activities and associated land disturbances to be made, agree upon
15 an alternate location, or agree upon the conditions under which the
16 drilling activity is to take place. Any modified drilling site
17 location or additional drilling conditions agreed to by the
18 applicant which would constitute an amendment of the proposed
19 permit application shall be submitted for the Secretary's review
20 and approval, with the proposed modifications reflected on a
21 revised plat which shall become a part of the permit application,
22 and submitted for the Secretary's review and approval.

23 (d) (1) The Secretary shall have the discretion to hold a
24 public hearing on the permit application prior to issuing a

1 decision on the permit, based upon the comments received or to
2 receive testimony and documentation on any of the factors the
3 Secretary is required to consider in the issuance of a permit under
4 section seven of this article. Any such public hearing scheduled
5 by the director shall be conducted no later than 30 days after the
6 conclusion of the comment period.

7 (2) If a public hearing is scheduled by the Secretary to
8 review the permit application, the time and place of the scheduled
9 public hearing shall be provided as a Class I legal advertisement
10 no later than seven days prior to the scheduled hearing.
11 Additional written notice of the hearing shall be provided to each
12 individual submitting written comments within the comment period.
13 Persons previously provided with individual notice of the
14 application notice pursuant to subsection (b), section ten of this
15 article shall be given at least ten days written notice of the
16 scheduled hearing. Notice of the scheduled hearing shall also be
17 published on the Secretary's public website. Persons registered to
18 receive electronic notices from the Secretary pertaining to permit
19 applications filed in the affected county shall also be provided
20 with electronic notice of the scheduled public hearing.

21 (3) At any such public hearing, the proposed well operator,
22 the objecting property owner or adjacent property owners on which
23 the proposed drilling activity is to be conducted, water purveyors,
24 coal seam operators, owners or lessors, municipalities and county

1 commissions located in the county where the permitted activity is
2 to be conducted, if any are present and represented, and any other
3 parties granted intervenor status by the Secretary shall be
4 provided the opportunity to present documents and testimony for the
5 Secretary's consideration. The Secretary will have the discretion
6 to limit and identify the scope of the issues on which testimony
7 and documents will be presented at any public hearing. Any persons
8 or entities not granted intervenor status and other members of the
9 general public appearing at such hearing shall be provided the
10 opportunity to tender a written or oral statement for the
11 Secretary's consideration.

12 (4) In reviewing the permit, after any public hearing is
13 conducted pursuant to this section, the Secretary shall consider
14 and receive documents and testimony filed at the hearing, as a part
15 of the record on the permit application, along with the previously
16 filed protests and comments.

17 (5) The Secretary shall prepare a record of the proceedings,
18 which record shall include all applications, plats and other
19 documents filed with the Secretary, any proposed revisions thereto,
20 all notices given and proof of service thereof, all orders issued,
21 all permits issued and a transcript of the hearing. The record
22 prepared by the Secretary shall be open to inspection by the
23 public.

24 **§22-6A-12. Well location restrictions.**

1 (a) Wells may not be drilled within 250 feet measured
2 horizontally from any existing water well or developed spring used
3 for human or domestic animal consumption. The center of well pads
4 may not be located within 625 feet of an occupied dwelling
5 structure, or a building 2,500 square feet or larger used to house
6 or shelter dairy cattle or poultry husbandry: Provided, That the
7 secretary may increase the distance by proposing rules for
8 legislative approval in accordance with the provisions of article
9 three, chapter twenty-nine-a of this code. This limitation is
10 applicable to those wells, developed springs, dwellings or
11 agricultural buildings that existed at the date a notice to the
12 surface owner of planned entry for surveying or staking as provided
13 in section ten of this article was provided, and to any dwelling
14 under construction or for which the surface owner had entered into
15 a contract for construction at that date. This limitation may be
16 waived by written consent of the surface owner. When the distance
17 restriction would deprive the owner of the oil and gas the right to
18 produce or share in the oil or gas underlying said surface tract,
19 the well operator may be granted a variance from said distance
20 restriction upon submission of a plan which shall identify the
21 additional measures, facilities or practices to be employed during
22 well site construction, drilling and operations. The variance, if
23 granted, shall include such additional terms and conditions as the
24 department may require to insure the safety and protection of

1 affected persons and property. The provisions may include
2 insurance, bonding and indemnification, as well as technical
3 requirements.

4 (b) No well pad may be prepared or well drilled within 100
5 feet measured horizontally from any watercourse, natural or
6 artificial lake, pond or reservoir, within 200 feet of the boundary
7 of a wetland or the boundary that affects the functions and values
8 of a wetland, or within 300 feet of a naturally reproducing trout
9 streams. No wellpad may be located within 1,000 feet of a surface
10 water or groundwater intake of a public water supply. The distance
11 from the public water supply as identified by the department, shall
12 be measured as follows:

13 (1) For a surface water intake on a lake or reservoir, the
14 distance shall be measured from the boundary of the lake or
15 reservoir.

16 (2) For a surface water intake on a flowing stream, the
17 distance shall be measured from a semicircular radius extending
18 upstream of the surface water intake.

19 (3) For a groundwater source, the distance shall be measured
20 from the wellhead or spring.

21 The department may waive such distance restrictions upon
22 submission of a plan which shall identify the additional measures,
23 facilities or practices to be employed during well site
24 construction, drilling and operations. Such waiver, if granted,

1 shall impose such permit conditions as are necessary to protect the
2 waters of the State.

3 **§22-6A-13. Plugging and abandonment of horizontal wells.**

4 The secretary shall promulgate legislative rules governing the
5 procedures for plugging horizontal wells, including rules relating
6 to the methods of plugging such wells and the notices required to
7 be provided in connection therewith.

8 **§22-6A-14. Reclamation requirements.**

9 The operator of a horizontal well shall reclaim the land
10 surface within the area disturbed in siting, drilling, completing
11 or producing the well in accordance with the following
12 requirements:

13 (a) Except as provided elsewhere in this section, within six
14 months after the completion of the drilling process the operator
15 shall fill all the pits and impoundments that are not required or
16 allowed by state or federal law or rule or agreement between the
17 operator and the surface owner that allows the impoundment to
18 remain open for the use and benefit of the surface owner (i.e. a
19 farm pond as described in section nine of this article) and remove
20 all concrete bases, drilling supplies, and drilling equipment.
21 Within that period, the operator shall grade or terrace and plant,
22 seed or sod the area disturbed that is not required in production
23 of the horizontal well where necessary to bind the soil and prevent
24 substantial erosion and sedimentation. No pit may be used for the

1 ultimate disposal of salt water. Salt water and oil shall be
2 periodically drained or removed and properly disposed of from any
3 pit that is retained so the pit is kept reasonably free of salt
4 water and oil. No pits may be left permanent. The operator shall
5 remove and dispose of any waste pit liner and liner wastes at a
6 landfill that is approved by the Secretary to receive liner and
7 liner wastes.

8 (b) For well pads containing multiple horizontal wells,
9 reclamation shall be completed within six months after the
10 completion of the drilling process for a well, unless the operator
11 commences drilling on a subsequent well at that location within
12 that six-month period.

13 (c) Within six months after a horizontal well that has
14 produced oil or gas is plugged or after the plugging of a dry hole,
15 the operator shall remove all production and storage structures,
16 supplies and equipment and any oil, salt water and debris and fill
17 any remaining excavations. Within that period, the operator shall
18 grade or terrace and plant, seed or sod the area disturbed where
19 necessary to bind the soil and prevent substantial erosion and
20 sedimentation.

21 (d) (1) It shall be the duty of the operator to commence the
22 reclamation of the area of land disturbed in siting, drilling,
23 completing or producing the horizontal well in accordance with soil
24 erosion and sediment control plans approved by the secretary or the

1 secretary's designee pursuant to this article.

2 (2) The secretary, upon written application by an operator
3 showing reasonable cause, may extend the period within which
4 reclamation shall be completed, but not to exceed a further six-
5 month period.

6 (3) If the secretary refuses to approve a request for
7 extension, the refusal shall be by order, which may be appealed
8 pursuant to the provisions of subsection (v), section five of this
9 article.

10 **§22-6A-15. Performance bonds; corporate surety or other security.**

11 (a) No permit shall be issued pursuant to this article unless
12 a bond as described in subsection (d) of this section which is
13 required for a particular activity by this article is or has been
14 furnished as provided in this section.

15 (b) A separate bond as described in subsection (d) of this
16 section may be furnished for each horizontal well drilled. Each of
17 these bonds shall be in the sum of \$50,000 payable to the State of
18 West Virginia, conditioned on full compliance with all laws, rules
19 relating to the drilling, redrilling, deepening, casing, and
20 stimulating of horizontal wells and to the plugging, abandonment,
21 and reclamation of horizontal wells and for furnishing such reports
22 and information as may be required by the secretary.

23 (c) When an operator makes or has made application for permits
24 to drill or stimulate a number of horizontal wells, the operator

1 may, in lieu of furnishing a separate bond, furnish a blanket bond
2 in the sum of \$250,000 payable to the State of West Virginia, and
3 conditioned as aforesaid in subsection (b) of this section.

4 (d) The form of the bond required by this article shall be
5 approved by the secretary and may include, at the option of the
6 operator, surety bonding, collateral bonding (including cash and
7 securities) letters of credit, establishment of an escrow account,
8 self-bonding or a combination of these methods. If collateral
9 bonding is used, the operator may elect to deposit cash, or
10 collateral securities or certificates as follows: Bonds of the
11 United States or its possessions, of the federal land bank, or of
12 the homeowners' loan corporation; full faith and credit general
13 obligation bonds of the State of West Virginia or other states or
14 of any county, district or municipality of the State of West
15 Virginia or other states; or certificates of deposit in a bank in
16 this state, which certificates shall be in favor of the department.
17 The cash deposit or market value of the securities or certificates
18 shall be equal to or greater than the amount of the bond. The
19 secretary shall, upon receipt of any deposit of cash, securities or
20 certificates, promptly place the same with the Treasurer of the
21 State of West Virginia whose duty it shall be to receive and hold
22 the same in the name of the state in trust for the purpose of which
23 the deposit is made when the permit is issued. The operator shall
24 be entitled to all interest and income earned on the collateral

1 securities filed by such operator. The operator making the deposit
2 shall be entitled from time to time to receive from the State
3 Treasurer, upon the written approval of the secretary, the whole or
4 any portion of any cash, securities or certificates so deposited,
5 upon depositing with the State Treasurer in lieu thereof, cash or
6 other securities or certificates of the classes herein specified
7 having value equal to or greater than the amount of the bond.

8 (e) When an operator has furnished a separate bond from a
9 corporate bonding or surety company to drill, fracture or stimulate
10 a horizontal well and the well produces oil or gas or both, its
11 operator may deposit with the secretary cash from the sale of the
12 oil or gas or both until the total deposited is \$5,000. When the
13 sum of the cash deposited is \$5,000, the separate bond for the well
14 shall be released by the secretary. Upon receipt of that cash, the
15 secretary shall immediately deliver that amount to the Treasurer of
16 the State of West Virginia. The State Treasurer shall hold the cash
17 in the name of the state in trust for the purpose for which the
18 bond was furnished and the deposit was made. The operator shall be
19 entitled to all interest and income which may be earned on the cash
20 deposited so long as the operator is in full compliance with all
21 laws and rules relating to the drilling, redrilling, deepening,
22 casing, plugging, abandonment, and reclamation of the well for
23 which the cash was deposited and so long as the operator has
24 furnished all reports and information as may be required by the

1 secretary. If the cash realized from the sale of oil or gas or both
2 from the well is not sufficient for the operator to deposit with
3 the secretary the sum of \$10,000 within one year of the day the
4 well started producing, the corporate or surety company which
5 issued the bond on the well may notify the operator and the
6 secretary of its intent to terminate its liability under its bond.
7 The operator then shall have thirty days to furnish a new bond from
8 a corporate bonding or surety company or collateral securities or
9 other forms of security, as provided in this section with the
10 secretary. If a new bond or collateral securities or other forms of
11 security are furnished by the operator, the liability of the
12 corporate bonding or surety company under the original bond shall
13 terminate as to any acts and operations of the operator occurring
14 after the effective date of the new bond or the date the collateral
15 securities or other forms of security are accepted by the Treasurer
16 of the State of West Virginia. If the operator does not furnish a
17 new bond or collateral securities or other forms of security with
18 the secretary, as provided in this section, the operator shall
19 immediately plug, fill and reclaim the well in accordance with all
20 of the provisions of law and rules applicable thereto. In such
21 case, the corporate or surety company which issued the original
22 bond shall be liable for any plugging, filling or reclamation not
23 performed in accordance with such laws and rules.

24 (f) Any separate bond furnished for a particular well prior to

1 the effective date of this article shall continue to be valid for
2 all work on the well permitted prior to the effective date of this
3 article; but no permit shall hereafter be issued on such a
4 particular well without a bond complying with the provisions of
5 this section. Any blanket bond furnished prior to the effective
6 date of this article shall be replaced with a new blanket bond
7 conforming to the requirements of this section, at which time the
8 prior bond shall be discharged by operation of law; and if the
9 secretary determines that any operator has not furnished a new
10 blanket bond, the secretary shall notify the operator by registered
11 mail or by any method of delivery that requires a receipt or
12 signature confirmation of the requirement for a new blanket bond,
13 and failure to submit a new blanket bond within sixty days after
14 receipt of the notice from the secretary shall work a forfeiture
15 under subsection (i) of this section of the blanket bond furnished
16 prior to the effective date of this article.

17 (g) Any such bond shall remain in force until released by the
18 secretary, and the secretary shall release the same upon
19 satisfaction that the conditions thereof have been fully performed.
20 Upon the release of any such bond, any cash or collateral
21 securities deposited shall be returned by the secretary to the
22 operator who deposited it.

23 (h) Whenever the right to operate a well is assigned or
24 otherwise transferred, the assignor or transferor shall notify the

1 department of the name and address of the assignee or transferee by
2 registered mail or by any method of delivery that requires a
3 receipt or signature confirmation not later than thirty days after
4 the date of the assignment or transfer. No assignment or transfer
5 by the owner shall relieve the assignor or transferor of the
6 obligations and liabilities unless and until the assignee or
7 transferee files with the department the well name and the permit
8 number of the subject well, the county and district in which the
9 subject well is located, the names and addresses of the assignor or
10 transferor, and assignee or transferee, a copy of the instrument of
11 assignment or transfer accompanied by the applicable bond, cash,
12 collateral security or other forms of security, described in this
13 section, and the name and address of the assignee's or transferee's
14 designated agent if assignee or transferee would be required to
15 designate such an agent under this article, if assignee or
16 transferee were an applicant for a permit under this article.
17 Every well operator required to designate an agent under this
18 section shall, within five days after the termination of such
19 designation, notify the department of such termination and
20 designate a new agent.

21 Upon compliance with the requirements of this section by
22 assignor or transferor and assignee or transferee, the secretary
23 shall release assignor or transferor from all duties and
24 requirements of this article and shall give written notice of

1 release to assignor or transferor of any bond and return to
2 assignor or transferor any cash or collateral securities deposited
3 pursuant to this section.

4 (i) If any of the requirements of this article or rules
5 promulgated pursuant thereto or the orders of the secretary has not
6 been complied with within the time limit set by any notice of
7 violation issued pursuant to this article, the performance bond
8 shall then be forfeited.

9 (j) When any bond is forfeited pursuant to the provisions of
10 this article or rules promulgated pursuant thereto, the secretary
11 shall collect the forfeiture without delay.

12 (k) All forfeitures shall be deposited in the Treasury of the
13 State of West Virginia in the Oil and Gas Reclamation Fund as
14 defined in section twenty-nine, article six of this chapter.

15 **§22-6A-16. Surface owners agreements.**

16 _____(a) Notwithstanding the provisions of article seven of this
17 chapter, the provisions of this section are applicable to
18 horizontal wells for the purpose of compensation for surface owners
19 and to mitigate impacts and loss of use of the surface where a
20 horizontal well is located.

21 (b) The operator shall compensate the surface owner for
22 damages sustained by the surface owner, for loss of agricultural
23 production and income, lost land value, lost value of timber crops,
24 for lost use and enjoyment of the surface, lost access to the

1 surface's owners land, and lost value of improvements caused by the
2 well construction and operation.

3 (c) No later than the date for filing the permit application,
4 an operator may, by certified mail return receipt requested or hand
5 delivery, give the surface owner notice of the planned operation:
6 Provided, That a surface owner may give permission to an operator
7 to enter the land for the purpose of preparing a surface owner's
8 agreement: Provided, further that after an inspection, a surface
9 owner and an operator may agree to an extension of time to allow for
10 revision of any proposed agreement to increase the likelihood of an
11 amicable agreement. The notices permitted by this section shall be
12 given to the surface owner at the address of the records shown by
13 the county clerk at the time of notice. The notice shall include:

14 (1) A copy of this code section;

15 (2) the name, address, telephone number, and if available,
16 facsimile number and electronic mail address of the operator and the
17 operator's authorized representative; and

18 (d) A proposed surface use and compensation agreement
19 addressing, at a minimum and to the extent known the following
20 issues:

21 (1) Placement and dimensions of well pads, gathering pipelines,
22 roads and pits to be constructed for drilling and production
23 operations;

24 (2) Use and impoundment of water on the surface of the land;

1 and

2 (3) An offer of compensation for damages to the surface
3 affected by oil and gas operations.

4 (e) Upon receipt of the surface owners compensation agreement,
5 the surface owner may:

6 (1) Accept the proposed surface owners agreement within twenty
7 days; or

8 (2) Reject the proposed surface use and compensation agreement
9 and enter into negotiations with the operator, including, if the
10 parties agree, mediation.

11 (f) If a civil action is brought, the surface owner must give
12 the operator thirty days notice of its intent to file suit. If a
13 court finds that compensation is owed under this section, the court
14 shall also award attorney fees as follows:

15 (1) If the operator provided notice pursuant to subsection (c)
16 and made an offer of compensation, then attorney fees shall be
17 awarded to the surface owner if the court awards damages that exceed
18 by twenty percent the last offer made by the operator, prior to
19 institution of suit; or

20 (2) If the operator did not provide notice pursuant to
21 subsection (c) then attorney fees shall be awarded to the surface
22 owner if the court awards damages greater than the last offer made
23 by the operator prior to institution of suit: Provided, That the
24 surface owner gave to the operator 30 days notice of his or her

1 intent to file suit; or

2 (g) In any action for breach of surface owners compensation
3 agreement, the court shall award attorney fees to the prevailing
4 party if either the surface owner or the operator willfully and
5 knowingly violated the surface owners compensation agreement.

6 (h) The remedies provided by this section are not exclusive and
7 do not preclude a person from seeking other remedies allowed by law.

8 **§22-6A-17. Reimbursement of property taxes of encumbered**
9 **properties.**

10 In addition to any compensation owed by the operator to the
11 surface owner pursuant to the provisions of article seven of this
12 chapter, the operator shall pay the surface owner \$2,500.00 to
13 compensate for payment of real property taxes for the surface lands
14 that are encumbered or disturbed by construction or operation of the
15 horizontal well pad.

16 **§22-6A-18. Civil action for contamination or deprivation of fresh**
17 **water source or supply; presumption; water rights and**
18 **replacement; waiver of replacement.**

19 (a) Nothing in this article affects in any way the rights of
20 any person to enforce or protect, under applicable law, the person's
21 interest in water resources affected by an oil or gas operation.

22 (b) Unless rebutted by one of the defenses established in
23 subsection (c) below, in any action for contamination or deprivation
24 of a fresh water source or supply within 2,500 feet of the center

1 of the well pad for an oil or gas well, there shall be a rebuttable
2 presumption that the drilling and the oil or gas well or either was
3 the proximate cause of the contamination or deprivation of the fresh
4 water source or supply.

5 (c) In order to rebut the presumption of liability established
6 in subsection (b) above, the operator must affirmatively prove one
7 of the following defenses:

8 (1) The pollution existed prior to the drilling or alteration
9 activity as determined by a predrilling or prealteration survey.

10 (2) The landowner or water purveyor refused to allow the
11 operator access to the property to conduct a predrilling or
12 prealteration survey.

13 (3) The water supply is not within two thousand five hundred
14 feet of the well.

15 (4) The pollution occurred more than six months after
16 completion of drilling or alteration activities.

17 (5) The pollution occurred as the result of some cause other
18 than the drilling or alteration activity.

19 (d) Any operator electing to preserve its defenses under
20 subdivision (c)(1) or (c)(2) above shall retain the services of an
21 independent certified laboratory to conduct the predrilling or
22 prealteration survey of water supplies. A copy of the results of
23 the survey shall be submitted to the department and the landowner
24 or water purveyor in a manner prescribed by the secretary.

1 (e) Any operator shall replace the water supply of an owner of
2 interest in real property who obtains all or part of that owner's
3 supply of water for domestic, agricultural, industrial or other
4 legitimate use from an underground or surface source where the
5 supply has been affected by contamination, diminution or
6 interruption proximately caused by the oil or gas operation, unless
7 waived by that owner.

8 (f) The operator conducting the oil or gas operation shall:
9 (1) Provide an emergency drinking water supply within twenty-four
10 hours; (2) provide temporary water supply within seventy-two hours;
11 (3) within thirty days begin activities to establish a permanent
12 water supply or submit a proposal to the secretary outlining the
13 measures and timetables to be utilized in establishing a permanent
14 supply. The total time for providing a permanent water supply may
15 not exceed two years. If the operator demonstrates that providing
16 a permanent replacement water supply cannot be completed within two
17 years, the secretary may extend the time frame on case-by-case
18 basis; and (4) pay all reasonable costs incurred by the real
19 property owner in securing a water supply.

20 (g) A real property owner as described in subsection (b) above
21 aggrieved under the provisions of subsections (b), (c) or (d) of
22 this section may seek relief in court.

23 (h) Notwithstanding the denial of the operator of
24 responsibility for the damage to the real property owner's water

1 supply or the status of any appeal on determination of liability for
2 the damage to the real property owner's water supply, the operator
3 may not discontinue providing the required water service until
4 authorized to do so by the secretary.

5 **§22-6A-19. Offenses; civil and criminal penalties.**

6 (a) Any person or persons, firm, partnership, partnership
7 association or corporation who willfully violates any provision of
8 this article or any rule or order promulgated hereunder shall be
9 subject to a civil penalty not exceeding \$5,000. Each day a
10 violation continues after notice by the department constitutes a
11 separate offense. The penalty shall be recovered by a civil action
12 brought by the department, in the name of the state, before the
13 circuit court of the county in which the subject well or facility
14 is located. All such civil penalties collected shall be credited to
15 the general fund of the state.

16 (b) Notwithstanding the provisions of subsection (a) of this
17 section, any person or persons, firm, partnership, partnership
18 association or corporation who willfully disposes of waste fluids,
19 drill cuttings or any other liquid substance generated in the
20 development of a horizontal well and which could impact surface or
21 groundwater, in violation of this article or any rule or order
22 promulgated hereunder or in violation of any other state or federal
23 statutes, rules or regulations, shall be subject to a civil penalty
24 not exceeding \$100,000. The penalty shall be recovered by a civil

1 action brought by the department, in the name of the state, before
2 the circuit court of the county in which the subject well or
3 facility is located. All such civil penalties collected shall be
4 credited to the general fund of the state.

5 (c) Any person or persons, firm, partnership, partnership
6 association or corporation willfully violating any of the provisions
7 of this article which prescribe the manner of drilling and casing
8 or plugging and filling any well, or which prescribe the methods of
9 conserving gas from waste, shall be guilty of a misdemeanor, and,
10 upon conviction thereof, shall be punished by a fine not exceeding
11 \$5,000, or imprisonment in a regional jail for not more than 12
12 months, or both, in the discretion of the court, and prosecutions
13 under this section may be brought in the name of the state of West
14 Virginia in the court exercising criminal jurisdiction in the county
15 in which the violation of such provisions of the article or terms
16 of such order was committed.

17 (d) Any person who intentionally misrepresents any material
18 fact in an application, record, report plan or other document filed
19 or required to be maintained under the provisions of this article
20 or any rules promulgated by the secretary thereunder is guilty of
21 a misdemeanor and, upon conviction thereof, shall be fined not less
22 than \$1,000 nor more than \$10,000, or imprisoned in a county or
23 regional jail not more than six months, or both fined and
24 imprisoned.

1 (e) Any person who willfully violates any provision of any
2 permit issued under or subject to the provisions of this article or
3 who willfully violates any provision of this article or any rule of
4 the secretary or any order of the secretary or board is guilty of
5 a misdemeanor and, upon conviction thereof, shall be fined not less
6 than \$2,500 dollars nor more than \$25,000 per day of violation, or
7 imprisoned in a county or regional jail not more than one year, or
8 both fined and imprisoned.

9 **§22-6A-20. Local ordinances.**

10 All local ordinances and enactments purporting to regulate gas
11 operations regulated by this act are hereby preempted and superseded
12 to the extent the ordinances and enactments regulate the method of
13 gas operations. Nothing in this act shall affect the traditional
14 power of local government to regulate zoning and land development
15 of gas activities as well as other aspects, such as the time and the
16 place of operations to protect the health, safety and welfare of the
17 general public through local ordinances and enactments.

18 **§22-6A-21. Division of Highways approval of well road access.**

19 As part of the permit application, the operator shall provide
20 a letter of certification from the Division of Highways that the
21 operator has entered into a required Division of Highways road
22 maintenance agreement for horizontal drilling operations and is in
23 compliance with all laws, regulations and conditions required by the
24 Division of Highways relating to use, maintenance and repair of all

1 state and county roads to be utilized for access to a well location,
2 including, but not limited to, those roads used for the
3 transportation of water, machinery or any other items or materials
4 related to the construction and operation of the well. The operator
5 shall be responsible and liable for all actions of the operator's
6 agents, employees, subcontractors and others under the direction of
7 the operator regarding performance under the agreement provided
8 herein above. Upon notice that the operator is failing to comply
9 with the letter of certification as required by this section, the
10 division shall deem such violation as a violation of a permit
11 condition for construction or operation of the well pursuant to this
12 article.

13 **§22-6A-22. Establishment of public website information and**
14 **electronic notification registry regarding horizontal**
15 **well permit applications.**

16 ____ (a) No later than ninety days after the effective date of this
17 article, the Secretary shall establish resources on the Department's
18 public website which will list searchable information related to all
19 horizontal well applications filed in this state, including
20 information sufficient to identify the county and approximate
21 location of each permit application for a horizontal well permit,
22 the referenced well application number, date of application and name
23 of the applicant.

24 (b) Notice of any and all public hearings scheduled on any

1 horizontal permit application pending before the Secretary shall be
2 prominently displayed and made readily available to the general
3 public on the Secretary's public website.

4 (c) The Secretary shall also establish a registration and e-
5 notification process by which individuals, corporations and agencies
6 may register to receive electronic notice of horizontal well
7 applications filings and notices, by county of interest. Once
8 established, individuals, agencies and corporations interested who
9 are properly registered to receive e-notices of filings and actions
10 on horizontal well permits shall receive electronic notifications
11 of applications, related notice of any public hearings and notices
12 of permits issued for horizontal drilling, in their designated
13 county or counties of interest.

14 **§22-6A-23. Air quality regulation, study and rulemaking.**

15 (a) Notwithstanding any other code provision to the contrary,
16 activities at the well site impacting air quality are to be
17 regulated, and when appropriate, permitted by the Office of Air
18 Quality, pursuant to article five of this chapter. Any permit or
19 other condition established pursuant to article five and rules
20 promulgated thereunder shall be deemed a condition of the drilling
21 permit issued pursuant to this article. The Secretary shall
22 consider as part of any air quality permit condition or other
23 regulation or limitation, the cumulative impacts to air quality of
24 multiple wells in a localized geographic area.

1 (b) The secretary shall, by July 1, 2012, report to the
2 Legislature on the need for further regulation of air pollution
3 occurring from well sites, including the possible health impacts,
4 the need for air quality inspections during drilling, the need for
5 inspections of compressors, pits and impoundments, and any other
6 potential air quality impacts that could be generated from this type
7 of drilling activity that could harm human health or the
8 environment. If he or she finds that specialized permit conditions
9 are necessary, the Secretary shall promulgate legislative rules
10 establishing these new requirements.

11 **§22-6A-24. Impoundment and pit safety study.**

12 The secretary shall, by July 1, 2012, report to the Legislature
13 on the safety of pits and impoundments utilized pursuant to section
14 nine of this article including an evaluation of whether testing and
15 special regulatory provision is needed for radioactivity or other
16 toxins held in the pits and impoundments. Upon a finding that
17 greater monitoring, safety and design requirements or other
18 specialized permit conditions are necessary, the Secretary shall
19 promulgate legislative rules establishing these new requirements.

20 **§22-6A-25. Comprehensive regulatory review of state hydraulic**
21 **fracturing regulations.**

22 No later than 60 days of the effective date of this article,
23 the Secretary shall formally request that the State Review of Oil
24 and Natural Gas Environmental Regulations, Inc. (STRONGER), a non-

1 profit, multistate organization, conduct a comprehensive review of
2 the State of West Virginia's laws and regulations pertaining to the
3 drilling of horizontal wells and hydraulic fracturing in comparison
4 to the 2010 Hydraulic Fracturing Guidelines developed by STRONGER,
5 and present its report and associated findings and recommendations
6 to the Legislature's Select Committee on Marcellus Shale Drilling
7 and Development, on or before July 1, 2012.

8 **§22-6A-26. Casing and cement standards.**

9 No later than thirty days after the effective date of this
10 article, the Secretary shall prepare a written guidance document for
11 casing standards which contains at a minimum the following
12 standards:

13 *(1) General requirements for protective devices, general casing*
14 *and cementing requirements.*

15 (A) Any person engaged in drilling any horizontal gas well
16 should equip the well with casings of sufficient strength and with
17 other safety devices as may be necessary and should use every effort
18 and endeavor effectively to prevent blowouts, explosions and fires.

19 (B) The operator should conduct casing and cementing activities
20 in accordance with this document and should case and cement the well
21 to accomplish the following:

22 (i) Allow effective control of the well at all times;

23 (ii) Prevent migration of gas or other fluids into sources of
24 fresh groundwater;

1 (iii) Prevent pollution of diminution of fresh groundwater; and
2 (iv) Prevent the migration of gas or other fluids into coal
3 seams.

4 (C) To aid in the protection of fresh groundwater, the well
5 operator should control and dispose of brines and discharges from
6 the drilling, alteration or operation of an oil and gas in a manner
7 which is consistent with the requirements of article six and six-a
8 of Chapter twenty-two of the West Virginia Code, as amended, and the
9 requirements of the Water Pollution Control Act (article eleven of
10 chapter twenty-two of the West Virginia Code), the Groundwater
11 Protection Act (article twelve of chapter twenty-two of the West
12 Virginia Code), or regulations promulgated thereunder.

13 (D) To prevent the migration of gas or fluids into sources of
14 fresh groundwater and to prevent pollution or diminution of fresh
15 groundwaters, there should be run and permanent cemented a string
16 or strings of casing in each well drilled through the fresh water
17 bearing strata to a depth and in a manner as prescribed this article
18 and by regulation of the Secretary.

19 (E) When the well is drilled a location where the coal seam
20 has not been removed, the well should be drilled to such a depth and
21 of size as will permit the placing of casing, packers in, and vents
22 on, throughout the borehole at such points and in such manner as
23 prescribed by the Secretary by regulation as will exclude all gas
24 or fluids from the coal seam, except such as may be found naturally

1 in the coal seam itself and will enable the monitoring by the
2 integrity of the production casing.

3 (2) *Casing and cementing plan; filing requirements, approval*
4 *and revision.*

5 (A) The operator should prepare and maintain a casing and
6 cementing plan showing how the well will be drilled and completed.
7 The plan should demonstrate compliance with the requirements of this
8 document, and include the following minimum information:

9 (i) The anticipated depth and thickness of any producing
10 formation, expected pressures, anticipated fresh groundwater zones
11 and the method or information by which the depth of the deepest
12 fresh groundwater was determined;

13 (ii) The diameter of the borehole;

14 (iii) Casing type, whether the casing to be utilized is new
15 or used, and the depth, diameter, wall thickness and burst pressure
16 rating for the casing;

17 (iv) Cement type, yield, additives and estimated amount of
18 cement to be used;

19 (v) The estimated location of centralizers;

20 (vi) The proposed borehole conditioning procedures; and

21 (vii) Any alternative methods or materials required by the
22 Secretary as a condition of the well permit.

23 (B) The well-specific casing and cementing plan should be
24 submitted to the Secretary for review and approval, and a copy of

1 the plan should be kept at the well site for review by the
2 Secretary.

3 (C) Any revisions to the casing and cementing plan made as a
4 result of onsite modification should be documented in the plan and
5 be available for review by the Secretary. The person making any
6 revisions to the plan should initial and date the revisions.

7 (3) *Conductor pipe.*

8 If the operator installs conductor pipe in the well, the
9 following provisions apply:

10 (A) The operator may not remove the pipe.

11 (B) Conductor pipe should be installed in a manner that
12 prevents the subsurface infiltration of surface water or fluids by
13 either driving the pipe into place or cementing the pipe from the
14 seat to the surface.

15 (C) Conductor pipe must be made of steel unless a different
16 material is approved for use by the Secretary.

17 (4) *Surface and coal protective casing and cementing*
18 *procedures.*

19 (A) For horizontal wells drilled, altered, reconditioned or
20 recompleted after the effective date of this article, surface casing
21 or any casing functioning as a water protection casing may not be
22 utilized as production casing unless one of the following applies:

23 (i) In oil wells where the operator does not produce any gas
24 generated by the well and the annulus between the surface casing and

1 the production pipe is left open.

2 (ii) The operator demonstrates that the pressure in the well
3 is no greater than the pressure permitted does not exceed the
4 parameters established by the Secretary for well construction and
5 operation, demonstrates through a pressure test or other method
6 approved by the Secretary that all gas and fluids will be contained
7 within the well, and installs a working pressure gauge that can be
8 inspected by the Secretary.

9 (B) If the well is to be equipped with threaded and coupled
10 casing, the operator should drill a hole so that the diameter is at
11 least 1 inch greater than the outside diameter of the casing collar
12 to be installed. If the well is to be equipped with plain-end welded
13 casing, the operator should drill a hole so that the diameter is at
14 least 1 inch greater than the outside diameter of the casing
15 coupling.

16 (C) The operator should drill to approximately 50 feet below
17 the deepest known fresh groundwater or at least 50 feet into
18 consolidated rock, whichever is deeper, and immediately set and
19 permanently cement a string of surface casing to that depth. Except
20 as provided in subsection six of this section, the surface casing
21 may not be set more than 200 feet below the deepest fresh
22 groundwater except if necessary to set the casing in consolidated
23 rock. The surface hole should be drilled using air, freshwater, or
24 freshwater-based drilling fluid. Prior to cementing, the wellbore

1 should be conditioned to ensure an adequate cement bond between the
2 casing and the formation. The surface casing seat should be set in
3 consolidated rock. When drilling a new well or redrilling an
4 existing well, the operator should install at least one centralizer
5 within 50 feet of the casing seat and then install a centralizer in
6 intervals no greater than every 150 feet above the first
7 centralizer.

8 (D) The operator should permanently cement the surface casing
9 by placing the cement in the casing and displacing it into the
10 annular space between the wall of the hole and the outside of the
11 casing.

12 (E) Where potential oil or gas zones are anticipated to be
13 found at depths within 50 feet below the deepest fresh groundwater,
14 the operator should set and permanently cement surface casing prior
15 to drilling into a stratum known to contain, or likely containing,
16 oil or gas.

17 (F) If additional fresh groundwater is encountered in drilling
18 below the permanently cemented surface casing, the operator should
19 document the depth of the fresh ground water zone in the well record
20 and protect the additional fresh groundwater by installing and
21 cementing a subsequent string of casing or other procedures approved
22 by the Secretary to completely isolate and protect fresh
23 groundwater. The string of casing may also penetrate zones bearing
24 salty or brackish water with cement in the annular space being used

1 to segregate the various zones. Sufficient cement should be used to
2 cement the casing to the surface. The operator should install at
3 least one centralizer within 50 feet of the casing seat and then
4 install a centralizer in intervals no greater than, if possible,
5 every 150 feet above the first centralizer.

6 (H) The operator should set and cement a coal protective
7 string of casing through workable coal seams, in accordance with the
8 provisions of section eighteen, article six of chapter twenty-two
9 of the West Virginia Code.

10 (I) When a well is drilled through a coal seam at a location
11 where the coal has been removed or when a well is drilled through
12 a coal pillar, the operator should install coal protective strings
13 and devices, in accordance with the provisions of section twenty,
14 article six of chapter twenty-two of the West Virginia Code.

15 (J) If the operator sets and cements casing pursuant to
16 subsection seven or eight of this section and subsequently
17 encounters additional fresh groundwater zones below the deepest
18 cemented casing string installed, the operator should protect the
19 fresh groundwater by installing and cementing another string of
20 casing or other method approved by the Secretary. Sufficient cement
21 should be used to cement the casing to the surface. The additional
22 casing string may also penetrate zones bearing brackish or salt
23 water, but should be run and cemented prior to penetrating a zone
24 known to or likely to contain oil or gas. The operator should

1 install at least one centralizer within 50 feet of the casing seat
2 and then, if possible, install a centralizer in intervals no greater
3 than every 150 feet above the first centralizer.

4 (K) If it is anticipated that cement used to permanently
5 cement the surface casing cannot be circulated to the surface, a
6 cement basket may be installed immediately above the depth of the
7 anticipated lost circulation zone. The casing should be permanently
8 cemented by the displacement method. Additional cement may be added
9 above the cement basket, if necessary, by pumping through a pour
10 string from the surface to fill the annular space. Filling the
11 annular space by this method does not constitute permanently
12 cementing the surface or coal protective casing under section ten
13 of this section (relating to casing and cementing-lost circulation).

14 (5) *Casing and cementing-lost circulation.*

15 (A) If cement used to permanently cement the surface or coal
16 protective casing is not circulated to the surface despite pumping
17 a volume of cement equal to or greater than 120% of the calculated
18 annular space, the operator should determine the top of the cement,
19 notify the Secretary, and meet one of the following requirements as
20 approved by the Secretary:

21 (i) Run an additional string of casing at least 50 feet deeper
22 than the string where circulation was lost and cement the additional
23 string of casing back to the seat of the string where circulation
24 was lost and vent the annulus of the additional casing string to the

1 atmosphere at all times unless closed for well testing or
2 maintenance. Shut-in pressure on the casing seat of the additional
3 string of casing may not exceed the requirements of subsection 11
4 of this section. (relating to intermediate and production casing).

5 (ii) Run production casing and set the production casing on
6 a packer in a competent formation below the string where circulation
7 was lost and vent the annulus of the production casing to the
8 atmosphere at all times unless closed for well testing or
9 maintenance.

10 (iii) Run production casing at least to the top of the
11 formation that is being produced and cement the production casing
12 to the surface.

13 (iv) Run intermediate and production casing and cement both
14 strings of casing to the surface.

15 (v) Produce oil but not gas and leave the annulus between the
16 surface casing and the production pipe open.

17 (vi) In addition to meeting the requirements of subsection one
18 of this section, the operator may also pump additional cement
19 through a pour string from the surface to fill the annular space.

20 (6) *Intermediate and production casing.*

21 (A) Prior to cementing the intermediate and production casing,
22 the borehole, mud and cement should be conditioned to ensure an
23 adequate cement bond between the casing and the formation.

24 (B) If the well is to be equipped with an intermediate casing,

1 centralizers should be used and the casing should be cemented to the
2 surface by the displacement method. Gas may be produced off the
3 intermediate casing if a shoe test demonstrates that all gas will
4 be contained within the well and a relief valve is installed at the
5 surface that is set less than the shoe test pressure. The shoe test
6 pressure should be recorded in the completion report.

7 (C) Except as provided in subsection nine of this section
8 (relating to surface and coal protective casing and cementing
9 procedures), each well must be equipped with production casing. The
10 production string may be set on a packer or cemented in place. If
11 the production casing is cemented in place, centralizers should be
12 used and cement should be placed by the displacement method with
13 sufficient cement to fill the annular space to a point at least 500
14 feet above true vertical depth or at least 200 feet above the
15 uppermost perforations, whichever is greater.

16 (7) *Minimum casing standards for horizontal wells.*

17 (A) The operator should install casing that can withstand the
18 effects of tension, and prevent leaks, burst and collapse during its
19 installation, cementing and subsequent drilling and producing
20 operations.

21 (B) All casing must be a string of new pipe with an internal
22 pressure rating that is at least 20% greater than the anticipated
23 maximum pressure to which the casing will be exposed. No used
24 casing along any segment of a horizontal well.

1 (C) Any plain end casing, except when being used as conductor
2 pipe, which is welded together for use must meet the following
3 requirements:

4 (i) The casing must pass a pressure test by holding the
5 anticipated maximum pressure to which the casing will be exposed for
6 30 minutes with not more than a 10% decrease in pressure. The
7 operator should notify the Secretary at least 24 hours before
8 conducting the test. The test results should be entered on the
9 drilling log.

10 (ii) The casing should be welded using at least three passes
11 with the joint cleaned between each pass.

12 (iii) The casing should be welded by a person trained and
13 certified in the applicable American Petroleum Institute, American
14 Society of Mechanical Engineers, American Welding Society or
15 equivalent standard for welding casing and pipe or an equivalent
16 training and certification program as approved by the Secretary. The
17 certification requirements of this paragraph should take effect on
18 the effective date of this article. A person with 10 or more years
19 of experience welding casing as of the effective date of this
20 article, who registers with the Secretary by December 1, 2011, is
21 deemed to be certified.

22 (iv) When casing through a workable coal seam, the operator
23 should install coal protective casing that has a minimum wall
24 thickness of 0.23 inch.

1 (v) Casing which is attached to a blow-out preventer with a
2 pressure rating of greater than 3,000 psi should be pressure tested
3 after cementing. A passing pressure test must be holding the
4 anticipated maximum pressure to which the casing will be exposed for
5 30 minutes with not more than a 10% decrease. Certification of the
6 pressure test should be confirmed by entry and signature of the
7 person

8 (8) *Cement standards.*

9 (A) When cementing surface casing or coal protective casing,
10 the operator should use cement that meets or exceeds the ASTM
11 International C 150, Type I, II or III Standard or API Specification
12 10. The cement must also:

13 (i) Secure the casing in the wellbore.

14 (ii) Isolate the wellbore from fresh groundwater.

15 (iii) Contain any pressure from drilling, completion and
16 production.

17 (iv) Protect the casing from corrosion from, and degradation
18 by, the geochemical, lithologic and physical conditions of the
19 surrounding wellbore. For wells employing coal protective casing,
20 this includes, but is not limited to, formulating cement to
21 withstand elevated sulfate concentrations and other geochemical
22 constituents of coal and associated strata which have the potential
23 to adversely affect the integrity of the cement.

24 (v) Prevent gas flow in the annulus. In areas of known shallow

1 gas producing zones, gas block additives and low fluid loss slurries
2 should be used.

3 (B) After the casing cement is placed behind surface casing,
4 the operator should permit the cement to set to a minimum designed
5 compressive strength of 500 pounds per square inch (psi) at the
6 casing seat. The cement placed at the bottom 300 feet of the surface
7 casing must constitute a zone of critical cement and achieve a
8 72-hour compressive strength of 1,200 psi and the free water
9 separation may be no more than 6 milliliters per 250 milliliters of
10 cement. If the surface casing is less than 300 feet, the entire
11 cemented string constitutes a zone of critical cement.

12 (C) After any casing cement is placed and cementing operations
13 are complete, the casing may not be disturbed for a minimum of 8
14 hours by doing any of the following:

15 (i) Releasing pressure on the cement head within 4 hours of
16 cementing if casing equipment check valves did not hold or casing
17 equipment was not equipped with check valves. After 4 hours, the
18 pressure may be released at a continuous, gradual rate over the next
19 four hours provided the floats are secure;

20 (ii) Nippling up on or in conjunction to the casing;

21 (iii) Slacking off by the rig supporting the casing in the
22 cement sheath; or,

23 (iv) Running drill pipe or other mechanical devices into or
24 out of the wellbore with the exception of a wireline used to

1 determine the top of cement.

2 (D) Where special cement or additives are used, the operator
3 may request approval from the Secretary to reduce the cement setting
4 time specified in this subsection three, above.

5 (E) The operator should notify the Secretary a minimum of 1
6 day before cementing of the surface casing begins, unless the
7 cementing operation begins within 72 hours of commencement of
8 drilling.

9 (F) A copy of the cement job log should be available at the
10 well site for inspection by the Secretary during drilling
11 operations. The cement job log must include the mix water
12 temperature and pH, type of cement with listing and quantity of
13 additive types, the volume, yield and density in pounds per gallon
14 of the cement and the amount of cement returned to the surface, if
15 any. Cementing procedural information must include a description of
16 the pumping rates in barrels per minute, pressures in pounds per
17 square inch, time in minutes and sequence of events during the
18 cementing operation.

19 (G) The cement job log should be maintained by the operator
20 after drilling operations for at least 5 years, and made available
21 to the Secretary for inspection upon request at any time during and
22 after well drilling and completion. Withing 60 days of well
23 completion, a copy of the full cement log for the well should be
24 filed with the Secretary.

1 (9) *Defective casing or cementing.*

2 In a well that has defective, insufficient or improperly
3 cemented casing, the operator should report the defect to the
4 Secretary within 24 hours of discovery by the operator and should
5 correct the defect. The operator should correct the defect or submit
6 a plan to correct the defect for approval by the Secretary within
7 30 days. If the defect cannot be corrected or an alternate method
8 is not approved by the Secretary, the well should be plugged.

9 (10) *Gas storage reservoir protective casing and cementing*
10 *procedures.*

11 (A) In addition to the other provisions of subsections nine,
12 ten and eleven of this section, a well drilled through a gas storage
13 reservoir or a gas storage reservoir protective area should be
14 drilled, cased and cemented as follows:

15 (i) An operator should use drilling procedures capable of
16 controlling anticipated gas flows and pressures when drilling from
17 the surface to 200 feet above a gas storage reservoir or gas storage
18 horizon.

19 (ii) An operator should use drilling procedures capable of
20 controlling anticipated gas storage reservoir pressures and flows
21 at all times when drilling from 200 feet above a gas storage
22 reservoir horizon to the depth at which the gas storage protective
23 casing will be installed. Operators should use blow-out prevention
24 equipment with a pressure rating in excess of the allowable maximum

1 storage pressure for the gas storage reservoir.

2 (iii) To protect the gas storage reservoir, an operator should
3 run intermediate or production casing from a point located at least
4 100 feet below the gas storage horizon to the surface. The operator
5 should cement this casing by circulating cement to a point at least
6 200 feet above the gas storage reservoir or gas storage horizon.

7 (iv) When cementing casing in a well drilled through a gas
8 storage reservoir, the operator should insure that no gas is present
9 in the drilling fluids in an amount that could interfere with the
10 integrity of the cement.

11 (B) A request by an operator for approval from the Secretary
12 to use an alternative method or material for the casing, plugging
13 or equipping of a well drilled through a gas storage reservoir must
14 satisfy the requirements of subsection six, subsection six of this
15 section.

16 *(11) Inspection of well and casing integrity.*

17 (A) After a well has been completed, recompleted,
18 reconditioned or altered, the operator should prevent surface shut-
19 in pressure and surface producing back pressure inside the surface
20 casing or coal protective casing from exceeding the following
21 pressure: 80% multiplied by 0.433 psi per foot multiplied by the
22 casing length (in feet) of the applicable casing.

23 (B) The operator should inspect each operating well at least
24 quarterly to ensure it is in compliance with the well construction

1 and operating requirements of this article and associated rules
2 promulgated by the Secretary. The results of the inspections should
3 be recorded and retained by the operator for at least 5 years and
4 be available for review by the Secretary and the coal owner or
5 operator.

6 (C) At a minimum, inspections must determine:

7 (i) The well-head pressure or water level measurement;

8 (ii) The open flow on the annulus of the production casing or
9 the annulus pressure if the annulus is shut in;

10 (iii) If there is evidence of gas escaping from the well and
11 the amount escaping, using measurement or best estimate of quantity;
12 and,

13 (iv) If there is evidence of progressive corrosion, rusting
14 or other signs of equipment deterioration.

15 (D) For structurally sound wells in compliance with subsection
16 nine this section (relating to surface and coal protective casing
17 and cementing procedure), the operator should follow the reporting
18 schedule outlined in subsections five six of this section.

19 (E) For wells exhibiting progressive corrosion, rusting or
20 other signs of equipment deterioration that compromise the integrity
21 of the well, or for wells which are not in compliance with the
22 requirements of subsection one of this section:

23 (i) The operator should immediately notify the Secretary and
24 take corrective actions to repair or replace defective equipment or

1 casing or mitigate the excess pressure on the surface casing seat
2 or coal protective casing seat. If the remedial or corrective
3 measures requires the installation of replacement production casing
4 or retrofitted production casing, the operator should notify the
5 Secretary at least 7 days prior to initiating the corrective
6 measure.

7 (ii) Additional mechanical integrity tests, including, but not
8 limited to, pressure tests, may be required by the Secretary to
9 demonstrate the integrity of the well.

10 (F) The operator should submit an annual report to the
11 Secretary identifying the compliance status of each well with the
12 mechanical integrity requirements of this section. The report should
13 be submitted on forms prescribed by, and available from, the
14 Secretary or in a similar manner approved by the Secretary.

15 (12) *Gas migration response.*

16 (A) When an operator or owner is notified of or otherwise made
17 aware of a potential natural gas migration incident, the operator
18 should immediately conduct an investigation of the incident. The
19 purpose of the investigation is to determine the nature of the
20 incident, assess the potential for hazards to public health and
21 safety, and mitigate any hazard posed by the concentrations of stray
22 natural gas.

23 (B) The investigation undertaken by the operator must include,
24 but not be limited to, the following:

1 (i) A site visit and interview with the complainant to obtain
2 information about the complaint and to assess the reported natural
3 gas migration incident;

4 (ii) A field survey to assess the presence and concentrations
5 of natural gas and aerial extent of the stray natural gas; and,

6 (iii) If necessary, establishment of monitoring locations at
7 potential sources, in potentially impacted structures, and the
8 subsurface.

9 (C) If combustible gas is detected inside a building or
10 structure at concentrations equal to or greater than 10% of the
11 Lower Explosive Limit (L.E.L.) the operator should do the following:

12 (i) Immediately notify the Secretary, local emergency response
13 agency, gas and electric utility companies, police and fire
14 departments and, in conjunction with the Secretary and local
15 emergency response agencies, take measures necessary to ensure
16 public health and safety;

17 (ii) Initiate mitigation measures necessary to control and
18 prevent further migration; and,

19 (iii) Implement the additional investigation and mitigation
20 measures as provided in subsection five of this section.

21 (D) The operator should notify the Secretary and, in
22 conjunction with the Secretary, take measures necessary to ensure
23 public health and safety, if sustained detectable concentrations of
24 combustible gas satisfy any of the following:

1 (i) Greater than 1% and less than 10% of the lower explosive
2 Limit (L.E.L.), in a building or structure;

3 (ii) Equal to or greater than 25% of the lower explosive limit
4 (L.E.L.) in a water well head space;

5 (iii) Detectable in the soils; or,

6 (iv) Equal to or greater than 7 mg/l dissolved methane in
7 water.

8 (E) The Secretary may require the operator to take one or more
9 of the following additional actions:

10 (i) Conduct a field survey to assess the presence and
11 concentrations of combustible gas and the areal extent of the
12 combustible gas in the soils, surface water bodies, water wells, and
13 other potential migration pathways;

14 (ii) Collect gas or water, or both, samples at a minimum for
15 molecular and stable carbon and hydrogen isotope analyses from the
16 impacted locations such as water wells, and from potential sources
17 of the migration such as gas wells;

18 (iii) Conduct an immediate evaluation of the operator's
19 adjacent oil or gas wells to determine well cement and casing
20 integrity and to evaluate the potential mechanism of migration. This
21 evaluation may include assessing pressures for all casing intervals,
22 reviewing records for indications of defective casing or cement,
23 application of cement bond logs, ultrasonic imaging tools,
24 geophysical logs, and other mechanical integrity tests as required.

1 The initial area of assessment must include wells within a radius
2 of 2,500 feet and may be expanded if required by the Secretary;

3 (iv) Take action to correct any defect in the oil and gas
4 wells to mitigate the stray gas incident.

5 (v) Establish monitoring locations and monitoring frequency
6 in consultation with the Secretary at potential sources, in
7 potentially impacted structures, and the subsurface.

8 (F) If concentrations of stray natural gas are detected at
9 less which are less than the levels set forth in subsections three
10 or four of this section, the operator should notify the Secretary,
11 and do the following if requested by the Secretary:

12 (i) Conduct additional monitoring;

13 (ii) Document findings; and,

14 (iii) Submit a closure report.

15 (G) If concentrations of stray natural gas are detected inside
16 a building or structure at concentrations equal to or greater than
17 10% of the lower explosive limit (L.E.L.), the operator and owner
18 should file a report with the Secretary by phone and email within
19 24 hours after the interview with the complainant and field survey
20 of the extent of stray natural gas. Additional daily or weekly
21 reports should be submitted if requested by the Secretary.

22 (H) For all stray natural gas migration incidents, a final
23 written report documenting the results of the investigation should
24 be submitted to the Secretary for approval within 30 days of the

1 close of the incident, or in a time frame otherwise approved by the
2 Secretary. The final report must include the following:

3 (i) Documentation of all results of the investigation,
4 including analytical data and monitoring results;

5 (ii) Operational changes established at the operator's oil and
6 gas wells in this State; and,

7 (iii) Measures taken by the operator to repair any defects at
8 any of the investigated oil and gas wells;

9 (I) Reports submitted in accordance with this section that
10 contain an analysis of geological or engineering data should be
11 prepared and sealed by a geologist or engineer licensed in this
12 State.

13 **CHAPTER 22C. ENVIRONMENTAL RESOURCES; BOARDS, AUTHORITIES,**
14 **COMMISSIONS AND COMPACTS.**

15 **ARTICLE 8. SHALLOW GAS WELL REVIEW BOARD.**

16 **§22C-8-2. Definitions.**

17 Unless the context in which used clearly requires a different
18 meaning, as used in this article:

19 (1) "Board" means the shallow gas well review board provided
20 for in section four of this article;

21 (2) "Chair" means the chair of the shallow gas well review
22 board provided for in section four of this article;

23 (3) "Coal operator" means any person who proposes to or does
24 operate a coal mine;

1 (4) "Coal seam" and "workable coal bed" are interchangeable
2 terms and mean any seam of coal twenty inches or more in thickness,
3 unless a seam of less thickness is being commercially worked, or can
4 in the judgment of the division foreseeably be commercially worked
5 and will require protection if wells are drilled through it;

6 (5) "Commission" means the Oil and Gas Conservation Commission
7 provided for in section four, article nine of this chapter;

8 (6) "Commissioner" means the Oil and Gas Conservation
9 Commissioner provided for in section four, article nine of this
10 chapter;

11 (7) "Correlative rights" means the reasonable opportunity of
12 each person entitled thereto to recover and receive without waste
13 the gas in and under a tract or tracts, or the equivalent thereof;

14 (8) "Deep well" means any well other than a shallow well or
15 coalbed methane well, drilled ~~and completed in~~ to a formation ~~at or~~
16 below the top of the uppermost member of the "Onondaga Group";

17 (9) "Division" means the state Division of Environmental
18 Protection provided for in chapter twenty-two of this code;

19 (10) "Director" means the Director of the Division of
20 Environmental Protection as established in article one, chapter
21 twenty-two of this code or such other person to whom the division
22 department delegates authority or duties pursuant to sections six
23 or eight, article one, chapter twenty-two of this code;

24 (11) "Drilling unit" means the acreage on which the board

1 decides one well may be drilled under section ten of this article;

2 (12) "Gas" means all natural gas and all other fluid
3 hydrocarbons not defined as oil in subdivision (15) of this section;

4 (13) "Gas operator" means any person who owns or has the right
5 to develop, operate and produce gas from a pool and to appropriate
6 the gas produced therefrom either for such person or for such person
7 and others. In the event that there is no gas lease in existence
8 with respect to the tract in question, the person who owns or has
9 the gas rights therein shall be considered a "gas operator" to the
10 extent of seven-eighths of the gas in that portion of the pool
11 underlying the tract owned by such person, and a "royalty owner" to
12 the extent of one-eighth of such gas;

13 (14) "Just and equitable share of production" means, as to each
14 person, an amount of gas in the same proportion to the total gas
15 production from a well as that person's acreage bears to the total
16 acreage in the drilling unit;

17 (15) "Oil" means natural crude oil or petroleum and other
18 hydrocarbons, regardless of gravity, which are produced at the well
19 in liquid form by ordinary production methods and which are not the
20 result of condensation of gas after it leaves the underground
21 reservoir;

22 (16) "Owner" when used with reference to any coal seam, shall
23 include any person or persons who own, lease or operate such coal
24 seam;

1 (17) "Person" means any natural person, corporation, firm,
2 partnership, partnership association, venture, receiver, trustee,
3 executor, administrator, guardian, fiduciary or other representative
4 of any kind, and includes any government or any political
5 subdivision or any agency thereof;

6 (18) "Plat" means a map, drawing or print showing the location
7 of one or more wells or a drilling unit;

8 (19) "Pool" means an underground accumulation of gas in a
9 single and separate natural reservoir (ordinarily a porous sandstone
10 or limestone). It is characterized by a single natural-pressure
11 system so that production of gas from one part of the pool tends to
12 or does affect the reservoir pressure throughout its extent. A pool
13 is bounded by geologic barriers in all directions, such as geologic
14 structural conditions, impermeable strata, and water in the
15 formation, so that it is effectively separated from any other pools
16 which may be present in the same district or in the same geologic
17 structure;

18 (20) "Royalty owner" means any owner of gas in place, or gas
19 rights, to the extent that such owner is not a gas operator as
20 defined in subdivision (13) of this section;

21 (21) "Shallow well" means any gas well other than a coalbed
22 methane well, drilled no deeper than one hundred feet below the top
23 of the "Onondaga Group": ~~and completed in a formation above the top~~
24 ~~of the uppermost member of the "Onondaga Group."~~ *Provided, That in*

1 ~~drilling a shallow well the well operator may penetrate into the~~
2 ~~"Onondaga Group" to a reasonable depth, not in excess of twenty~~
3 ~~feet, in order to allow for logging and completion operations, but~~
4 in no event may the "Onondaga Group" formation or any formation
5 below the "Onondaga Group" be otherwise produced, perforated or
6 stimulated in any manner;

7 (22) "Tracts comprising a drilling unit" means that all
8 separately owned tracts or portions thereof which are included
9 within the boundary of a drilling unit;

10 (23) "Well" means any shaft or hole sunk, drilled, bored or dug
11 into the earth or into underground strata for the extraction,
12 injection or placement of any liquid or gas, or any shaft or hole
13 sunk or used in conjunction with such extraction, injection or
14 placement. The term "well" does not include any shaft or hole sunk,
15 drilled, bored or dug into the earth for the sole purpose of core
16 drilling or pumping or extracting therefrom potable, fresh or usable
17 water for household, domestic, industrial, agricultural or public
18 use; and

19 (24) "Well operator" means any person who proposes to or does
20 locate, drill, operate or abandon any well.

21 **ARTICLE 9. OIL AND GAS CONSERVATION.**

22 **§22C-9-2. Definitions.**

23 (a) Unless the context in which used clearly requires a
24 different meaning, as used in this article:

1 (1) "Commission" means Oil and Gas Conservation Commission and
2 "commissioner" means the oil and gas conservation commissioner as
3 provided for in section four of this article;

4 (2) "Director" means the Director of the Division of
5 Environmental Protection and "chief" means the chief of the Office
6 of Oil and Gas;

7 (3) "Person" means any natural person, corporation,
8 partnership, receiver, trustee, executor, administrator, guardian,
9 fiduciary or other representative of any kind, and includes any
10 government or any political subdivision or any agency thereof;

11 (4) "Operator" means any owner of the right to develop, operate
12 and produce oil and gas from a pool and to appropriate the oil and
13 gas produced therefrom, either for such person or for such person
14 and others; in the event that there is no oil and gas lease in
15 existence with respect to the tract in question, the owner of the
16 oil and gas rights therein shall be considered as "operator" to the
17 extent of seven-eighths of the oil and gas in that portion of the
18 pool underlying the tract owned by such owner, and as "royalty
19 owner" as to one-eighth interest in such oil and gas; and in the
20 event the oil is owned separately from the gas, the owner of the
21 substance being produced or sought to be produced from the pool
22 shall be considered as "operator" as to such pool;

23 (5) "Royalty owner" means any owner of oil and gas in place,
24 or oil and gas rights, to the extent that such owner is not an

1 operator as defined in subdivision (4) of this section;

2 (6) "Independent producer" means a producer of crude oil or
3 natural gas whose allowance for depletion is determined under
4 Section 613A of the federal Internal Revenue Code in effect on July
5 1, 1997;

6 (7) "Oil" means natural crude oil or petroleum and other
7 hydrocarbons, regardless of gravity, which are produced at the well
8 in liquid form by ordinary production methods and which are not the
9 result of condensation of gas after it leaves the underground
10 reservoir;

11 (8) "Gas" means all natural gas and all other fluid
12 hydrocarbons not defined as oil in subdivision (7) of this section;

13 (9) "Pool" means an underground accumulation of petroleum or
14 gas in a single and separate reservoir (ordinarily a porous
15 sandstone or limestone). It is characterized by a single
16 natural-pressure system so that production of petroleum or gas from
17 one part of the pool affects the reservoir pressure throughout its
18 extent. A pool is bounded by geologic barriers in all directions,
19 such as geologic structural conditions, impermeable strata, and
20 water in the formations, so that it is effectively separated from
21 any other pools that may be presented in the same district or on the
22 same geologic structure;

23 (10) "Well" means any shaft or hole sunk, drilled, bored or dug
24 into the earth or underground strata for the extraction of oil or

1 gas;

2 (11) "Shallow well" means any well other than a coalbed methane
3 well, drilled no deeper than one hundred feet below the top of the
4 "Onondaga Group": ~~and completed in a formation above the top of the~~
5 ~~uppermost member of the "Onondaga Group."~~ *Provided, That in drilling*
6 ~~a shallow well the operator may penetrate into the "Onondaga Group"~~
7 ~~to a reasonable depth, not in excess of twenty feet, in order to~~
8 ~~allow for logging and completion operations, but~~ in no event may the
9 "Onondaga Group" formation or any formation below the "Onondaga
10 Group" be ~~otherwise~~ produced, perforated or stimulated in any
11 manner;

12 (12) "Deep well" means any well, other than a shallow well or
13 coalbed methane well, drilled ~~and completed in~~ to a formation ~~at or~~
14 below the top of the uppermost member of the "Onondaga Group;"

15 (13) "Drilling unit" means the acreage on which one well may
16 be drilled;

17 (14) "Waste" means and includes:

18 (A) Physical waste, as that term is generally understood in the
19 oil and gas industry;

20 (B) The locating, drilling, equipping, operating or producing
21 of any oil or gas well in a manner that causes, or tends to cause,
22 a reduction in the quantity of oil or gas ultimately recoverable
23 from a pool under prudent and proper operations, or that causes or
24 tends to cause unnecessary or excessive surface loss of oil or gas;

1 or

2 (C) The drilling of more deep wells than are reasonably
3 required to recover efficiently and economically the maximum amount
4 of oil and gas from a pool. Waste does not include gas vented or
5 released from any mine areas as defined in section two, article one,
6 chapter twenty-two-a of this code or from adjacent coal seams which
7 are the subject of a current permit issued under article two of
8 chapter twenty-two-a of this code: *Provided*, That nothing in this
9 exclusion is intended to address ownership of the gas;

10 (15) "Correlative rights" means the reasonable opportunity of
11 each person entitled thereto to recover and receive without waste
12 the oil and gas in and under his tract or tracts, or the equivalent
13 thereof; and

14 (16) "Just and equitable share of production" means, as to each
15 person, an amount of oil or gas or both substantially equal to the
16 amount of recoverable oil and gas in that part of a pool underlying
17 such person's tract or tracts.

18 (b) Unless the context clearly indicates otherwise, the use of
19 the word "and" and the word "or" shall be interchangeable, as, for
20 example, "oil and gas" shall mean oil or gas or both.

NOTE: The purpose of this bill is to establish a specialized regulatory process for large gas drilling operations conducting horizontal drilling activities that disturb three acres or more or use more than 210,000 gallons of water in one month; establishes additional permitting conditions to provide requirements particular to this activity; and provide protections for local residences and the environment. This bill is recommended for passage in special session by the Select Committee on Marcellus Drilling.