

NOTICE OF AGENCY APPROVAL

LEGISLATIVE RULE: Rules of the Department of Energy,  
(title)

Division of Oil and Gas - Series 1 through 8

The attached legislative rule constitutes the official rule approved by the Department of Energy - Division of Oil & Gas  
(agency)

on 15th day of August, 1986 and filed pursuant to law with the West Virginia Secretary of State and the Legislative Rule-Making Review Committee.

  
\_\_\_\_\_  
Signature of Commissioner

1986 AUG 11 PM 1:41  
OFFICE OF THE  
SECRETARY OF STATE

FILED

WEST VIRGINIA LEGISLATIVE RULE  
 DEPARTMENT OF ENERGY  
 DIVISION OF OIL AND GAS  
 CHAPTERS 22-1 and 22B-1  
 SERIES 1

1976 AUG 11 PM 2:15  
 DEPT OF ENERGY  
 DIVISION OF OIL AND GAS  
 LEGISLATIVE STAFF

FILED

Title: Oil and Gas Wells and Other Wells

|         |   |   |
|---------|---|---|
| Section | 1. General  |   |
|         | 1.1 Scope   | 1 |
|         | 1.2 Authority and Related Code Citation(s)                              | 1 |
|         | 1.3 Filing Date   | 1 |
|         | 1.4 Effective Date  | 1 |
|         | 1.5 Former Rule Superseded  | 1 |
|         | 1.6 Forms   | 1 |
|         | 2. Definitions  | 1 |
|         | 2.1 W.Va. Code  | 1 |
|         | 2.2 Barrel  | 1 |
|         | 2.3 Completion of the drilling process                                  | 2 |
|         | 2.4 Cubic foot of gas   | 2 |
|         | 2.5 Day   | 2 |
|         | 2.6 Designated agent  | 2 |
|         | 2.7 Gas-oil ratio test  | 2 |
|         | 2.8 Gas well  | 2 |
|         | 2.9 Initial gas-oil ratio test  | 2 |
|         | 2.10 Log or well log  | 2 |
|         | 2.11 Oil well   | 2 |
|         | 2.12 Surface owner of record  | 2 |
|         | 2.13 Underground storage well   | 3 |
|         | 3. Inspectors Forms, Forms, Departmental Records                        | 3 |
|         | 3.1 Notice and application forms  | 3 |
|         | 3.2 Report forms  | 3 |
|         | 4. Inspectors Findings of Violation, Abatement                          | 3 |
|         | 4.1 Violations, findings and orders                                     | 3 |
|         | 5. Permits, Notice, Review  | 3 |
|         | 5.1 Registration; designated agent;<br>transfer of title                | 3 |
|         | 5.2 Application for permits; issuance,<br>conditions, and modifications | 5 |
|         | 5.3 Flat well royalty leases  | 7 |

Department of Energy  
Division of Oil and Gas  
Leg. Rule, 22-1 and 22B-1  
Series 1

|     |   |    |
|-----|---|----|
| 5.4 | Notice of surface owners of record;<br>proof of notice; comments                | 7  |
| 5.5 | Identification marking  | 9  |
| 5.6 | Parties responsible   | 10 |
| 5.7 | Evidence of performance   | 10 |
| 6.  | Plats, Notice to Coal Owner, Operator or<br>Lessee                              | 10 |
| 6.1 | Plats   | 10 |
| 6.2 | Notice to coal operators, owners or<br>lessees                                  | 11 |
| 7.  | Operational Regulations on Liquid Injection<br>and Waste Disposal Wells         | 12 |
| 7.1 | Tubing and packer arrangements;<br>variance; regulation of pressure             | 12 |
| 7.2 | Disposal of connate or polluted water   | 12 |
| 7.3 | Preoperational certificate  | 12 |
| 7.4 | Partial exemption for certain wells   | 13 |
| 7.5 | Monitoring by operators   | 14 |
| 7.6 | Limitation  | 14 |
| 7.7 | Authorization and re-testing of wells   | 14 |
| 8.  | Objections to Application; Notice   | 14 |
| 8.1 | Objection filed by coal operators,<br>owners or lessees                         | 14 |
| 8.2 | Objection by the Division   | 14 |
| 8.3 | Notice to applicant of objection  | 14 |
| 8.4 | Notice to Shallow Gas Well Review<br>Board of objection; copies to<br>applicant | 15 |
| 9.  | Form and Contents of Plats  | 15 |
| 9.1 | Statutory requirements for plats  | 15 |
| 9.2 | Additional requirements for plats   | 15 |
| 9.3 | Plat certification  | 20 |
| 9.4 | Re-use of plats   | 20 |
| 9.5 | Permanent character of plats  | 20 |
| 10. | Performance Bonds for Well Operators  | 20 |

Department of Energy  
Division of Oil and Gas  
Leg. Rule, 22-1 and 22B-1  
Series 1

|      |   |    |
|------|---|----|
| 10.1 | Separate bonds  | 20 |
| 10.2 | Blanket bonds   | 21 |
| 11.  | Operational Criteria  | 21 |
| 11.1 | Casing not exclusive  | 21 |
| 11.2 | Multiple casing through coal seams                          | 21 |
| 11.3 | Freshwater casing   | 22 |
| 11.4 | Cement strength   | 22 |
| 11.5 | Cement type   | 22 |
| 12.  | Well Records  | 22 |
| 12.1 | Well records made during permitted work                     | 22 |
| 12.2 | Filing of well records and related forms                    | 23 |
| 12.3 | Restriction of new application                              | 24 |
| 13.  | Plugging, Abandonment and Reclamation                       | 24 |
| 13.1 | Notice and application to plug and abandon; time of filing  | 24 |
| 13.2 | Work order; manner and method of plugging                   | 25 |
| 13.3 | "Verbal permission" to plug                                 | 25 |
| 13.4 | Objections to proposed plugging                             | 26 |
| 13.5 | Plugging method request by coal operator or coal seam owner | 26 |
| 13.6 | Statutory affidavit   | 26 |
| 14.  | Plugging Methods  | 27 |
| 14.1 | Materials used in plugging                                  | 27 |
| 14.2 | Cleaning out and replugging application; objection; order   | 27 |
| 15.  | Reports   | 27 |
| 15.1 | Annual report of oil and gas production                     | 27 |
| 15.2 | Accidents   | 28 |
| 16.  | Reclamation   | 29 |
| 16.1 | Reclamation under the construction and reclamation plan     | 29 |
| 16.2 | Access road   | 29 |

Department of Energy  
Division of Oil and Gas  
Leg. Rule, 22-1 and 22B-1  
Series 1

|      |  |    |
|------|--|----|
| 16.3 | Drilling site  | 29 |
| 16.4 | Pits   | 29 |
| 16.5 | Surface and underground water<br>pollution             | 30 |
| 16.6 | Notification prior to commencement<br>of work          | 31 |
| 16.7 | Requirements for production and<br>gathering pipelines | 31 |
| 17.  | Preventing Waste                                       | 32 |
| 17.1 | Equipment  | 32 |
| 17.2 | Commerical well properly equipped                      | 33 |
| 17.3 | Protection of high pressure wells                      | 33 |
| 17.4 | Preparation for drilling in                            | 33 |
| 17.5 | Multi-zone production                                  | 33 |
| 17.6 | Drilling deeper  | 33 |
| 18.  | Variances  | 33 |

WEST VIRGINIA LEGISLATIVE RULE  
DEPARTMENT OF ENERGY  
DIVISION OF OIL AND GAS  
CHAPTER 22-1 AND 22B-1  
SERIES 1

1985 AUG 11 PM 2:14  
OFFICE OF THE CLERK  
SENATE OF WEST VIRGINIA

FILED

Title: Oil and Gas Wells and Other Wells

Section 1. General

1.1 Scope - This rule shall govern and apply to proceedings under W. Va. Code §22B-1 governing oil and gas wells and other wells, except proceedings with respect to the "Natural Gas Policy of 1978" covered by Series 2 of the Division's rules.

1.2 Authority and Related Code Citation(s) - W. Va. Code §§22-1-13; 22-1-15; 22-1-16; and 22B-1-2

1.3 Filing Date -

1.4 Effective Date -

1.5 Former Rule Superseded - This legislative rule supersedes West Virginia Legislative Rule "Office of Oil and Gas, Department of Mines, Chapter 22-4, Series V, Oil and Gas Wells and other Wells," in effect on July 11, 1985. Such rule was continued in effect pursuant of W. Va. Code §22-1-15 for the benefit of the Department of Energy inasmuch as it pertained to the provisions of The West Virginia Energy Act.

1.6 Forms - An index of all current forms and copies of any forms currently used under or required by this rule may be obtained from the Director. The Division of Oil and Gas reserves the right to amend any forms prospectively to accord more fully with The West Virginia Energy Act on this rule.

Section 2. Definitions

Unless the context in which used clearly requires a different meaning, the definitions contained in W. Va. Code §22-1-3 and §22B-1-1 shall apply to this rule in addition to those definitions set forth below:

2.1 "W. Va. Code" shall mean the West Virginia Code of 1931, as amended.

2.2 "Barrel" shall mean 42 U. S. gallons of 231 cubic inches each of liquids, including slurries, at a temperature of 60 degrees Fahrenheit.

2.3 "Completion of the drilling process," as used in W. Va. Code §22B-1, shall mean the date on which a drilling rig ceases operation on the drilling site for more than 30 consecutive days.

2.4 "Cubic foot of gas" shall mean the volume of gas contained in one cubic foot at a standard pressure base of 14.73 pounds per square inch (absolute) and a standard temperature of 60 degrees Fahrenheit.

2.5 "Day" shall mean a period of 24 consecutive hours.

2.6 "Designated agent" shall mean a resident of the State of West Virginia designated by an operator as the agent or attorney in fact of the operator upon whom process, notices, orders, or other communications issued pursuant to W. Va. Code §22B may be served. See Section 5.1.

2.7 "Gas-oil ratio test" shall mean a test, by any means generally accepted in the industry, to determine the number of cubic feet of gas produced per barrel of oil produced.

2.8 "Gas well" shall mean any well which produces or appears capable of producing a ratio of 6,000 cubic feet of gas or more to each barrel of oil on the basis of the initial gas-oil ratio test.

2.9 "Initial gas-oil ratio test" shall mean the gas-oil ratio test performed for the purpose of completing Form IV-36, "Well Operator's Report of Initial Gas-Oil Ratio Test," to designate the type of well.

2.10 "Log" or "well log" shall mean a systematic, detailed geological record of all formations, including coal, fresh water, and salt water encountered in the drilling of a well.

2.11 "Oil well" shall mean any well which produces or appears capable of producing a ratio of less than 6,000 cubic feet of gas to each barrel of oil on the basis of the initial gas-oil ratio test.

2.12 "Surface owner of record," and the term "owner of record of the surface" as used in W. Va. Code §22B-1-9, shall mean any person who is an owner of record of surface land or an undivided interest therein, whether or not the surface ownership is severed from the oil and gas or other mineral ownership.

Department of Energy  
Division of Oil and Gas  
Leg. Rule, 22-1 and 22B-1  
Series 1, Sec. 2

2.13 "Underground storage well" shall mean a gas well subject to the provisions of W. Va. Code §22B-4.

Section 3. Inspectors Forms, Forms, Departmental Records

3.1 Notice and Application Forms - Forms WW-2(A), WW-2(B), WW-3(A), WW-3(B), WW-4(A), and WW-4(B) shall accord the interested parties essentially the same notice, rights and statements of those rights and be in substantially the same form as the versions of those forms issued at the same time as this rule.

3.2 Report Forms - The report forms to be used by oil and gas inspectors or the supervising inspector upon inspection pursuant to W. Va. Code §22B are as follows:

3.2.1 Form VI-26, "Inspector's Well Report" for permitted well work (obverse) except plugging and abandonment (reverse);

3.2.2 Form VI-27, "Notice of Violation;"

3.2.3 Form VI-28, "Imminent Danger Order;"

3.2.4 Form VI-29, "Notice Extending Abatement Time;"

3.2.5 Form VI-30, "Order for Failure to Abate Violation;"

3.2.6 Form VI-31, "Notice of Abatement;"

Section 4. Inspectors Findings of Violation, Abatement

4.1 Violations, Findings, and Orders - Findings and orders of oil and gas inspectors concerning violations discovered during an inspection shall be recorded on the appropriate form listed in Section 3.1. Such findings and orders shall not be construed to limit the Division's power to initiate any other lawful proceedings concerning violations of W. Va. Code §22B-1, or this rule.

Section 5. Permits, Notice, Review

5.1 Registration; Designated Agent; Transfer of Title

5.1.1 All persons owning or operating or proposing to own or operate any well in West Virginia shall register with the Director. In all cases an agent or attorney in fact shall be

designated on Form OP-1, "Designation of Agent by Well Owner or Operator" by and for each well owner or operator, upon whom process, notices, orders and other communications issued pursuant to Chapter 22B of the W. Va. Code may also be served; but the designation shall not be effective until it has been accepted in writing by the Designee and approved by the Division. Every well owner or operator who has designated such agent or attorney in fact shall, within five days after termination of such designation, notify the Division of such termination and designate a new agent on Form OP-1. This rule applies to all well operators, not merely those whom W. Va. Code §22B-1-6 specifically requires to designate an agent; provided, that a well operator who is a natural person and a resident of the State of West Virginia may list himself instead of an agent for service of all such papers.

5.1.2.1 When title to a well or the right to operate a well is transferred from one well owner to another, the Director shall be notified in writing within five days by the transferor well owner of the name and address of the transferee well owner. A copy of such notification shall be delivered to the transferee well owner. Failure to notify the Director of such transfer shall be a violation of this rule by said transferor and shall be punishable under W. Va. Code §22B-1-34; and in addition, all bonds of such transferor under W. Va. Code §22B-1 shall be forfeited.

5.1.2.2 The transferee well owner shall forthwith register with the Division if he has not previously registered such ownership. In any event, said transferee shall forthwith notify the Division of his designated agent or attorney in fact pursuant to Section 5.1 unless a designation has already been made and approved. The transferee well owner shall file with the Division the well name and the permit number of the subject well, the county and district in which the subject well is located, the names and addresses of the transferor well owners and the transferee well owners, a copy of the instrument of assignment or transfer, or a certification of such assignment or transfer acceptable to the Director, and the applicable bond, cash, or collateral security, described in W. Va. Code §22B-1-26.

5.1.2.3 No assignment or transfer by the transferor owner shall relieve the transferor well owner of any obligations and liabilities pursuant to these rules or the West Virginia Energy Act unless and until the transferee well owner files with the Division the well name and the permit number of the subject well, the county and district in which the subject well is located, the names and addresses of the transferor well owners and the

Department of Energy  
Division of Oil and Gas  
Leg. Rule, 22-1 and 22B-1  
Series 1, Sec. 5

transferee well owners, a copy of the instrument of assignment or transfer, or a certification of such assignment or transfer acceptable to the Director, the bond, cash, or collateral security, which satisfies the requirements of W.Va. Code §22B-1-26, and the name and address of the transferee well owner's designated agent if the transferee well owner would be required to designate such an agent under W.Va. Code §22B-1-6.

5.1.2.4 Upon compliance with the requirements of Section 5.1.2.1, 5.1.2.2 and 5.1.2.3 by the transferor well owner and transferee well owner, the Director shall release the transferor well owner from all duties and requirements of this rule, and the Director shall give written notice of release to the transferor well owner of any bond and return to the transferor well owner any cash or collateral securities deposited pursuant to W.Va. Code §22B-1-12, §22B-1-12, §22B-1-14 or §22B-1-26.

## 5.2 Application for Permit; Issuance, Conditions, and Modifications

5.2.1 An application for any well work permit required for an oil or gas well or an underground storage well by W. Va. Code §22B-1-6, except for permits to plug a well, shall be made on Form WW-2(B), "Application for a Well Work Permit," and shall be accompanied by:

5.2.1.1 a "Notice of Application for a Well Work Permit" in the form prescribed by Section 5.4,

5.2.1.2 a plat in the form prescribed by Section 9,

5.2.1.3 a bond in one of the forms prescribed by Section 10, or in lieu thereof cash or collateral security allowed by W. Va. Code §22B-1-26,

5.2.1.4 Form WW-9, "Construction and Reclamation Plan," applicable to the plan required by W. Va. Code §22B-1-6(d) and a plan for performing the reclamation required by W. Va. Code §22B-1-30 and Section 16,

5.2.1.5 with any initial application to drill a well the fees required by W. Va. Code §22B-1-2 (\$250 application fee), W. Va. Code §22B-1-29 (\$100 special reclamation fee), and a fee of thirty-five dollars (\$35) for field review of soil and erosion control plans.

5.2.1.6 if applicable, the consent required by W. Va. Code §22B-1-21.

Department of Energy  
Division of Oil and Gas  
Leg. Rule, 22-1 and 22B-1  
Series 1, Sec. 5

5.2.2 Where there is more than one type of well work, a single application may be used provided all such well work is noted on the Form WW-2(B) filed in connection therewith.

5.2.3 An application for any liquid or waste disposal well permit required by W. Va. Code §22B-1-6, except a permit to plug a well, shall be made on Form WW-3(B), "Liquid Injection or Waste Disposal Well Work Permit Application," and shall be accompanied by

5.2.3.1 a "Notice of Liquid Injection or Waste Disposal Application" in the form prescribed by Section 5.4,

5.2.3.2 a plat in the form prescribed by Section 9,

5.2.3.3 a bond in one of the forms prescribed by Section 10, or in lieu thereof the cash or collateral security allowed by W. Va. Code §22B-1-14,

5.2.3.4 Form WW-9, "Construction and Reclamation Plan," applicable to the reclamation required by W. Va. Code §22B-1-30 and Section 10, and

5.2.3.5 with the initial application to drill a well, the fees required by W. Va. Code §§22B-1-2 and 22B-1-29. A separate application for permit shall not be required for stimulating a well where stimulating is to be a part of the well work for which a permit is sought and such fact is noted on the Form WW-3(B) filed in connection therewith.

5.2.4 An application for a permit to plug a well shall be made on Form WW-4(B), "Application to Plug and Abandon a Well," and shall be accompanied by:

5.2.4.1 a "Notice of Application to Plug and Abandon a Well," in the form prescribed by Section 5.4,

5.2.4.2 a plat in the form prescribed by Section 9,  
and

5.2.4.3 a bond in one of the forms prescribed by Section 10, or in lieu thereof cash or collateral security required by W. Va. Code §22B-1-23,

5.2.5 The applicant for any permit mentioned in this rule must file an original and two copies of the Application and an original and four copies of the Notice, plat and, except for applications for a permit to plug a well, a Construction and Reclamation Plan.

Department of Energy  
Division of Oil and Gas  
Leg. Rule, 22-1 and 22B-1  
Series 1, Sec. 5

5.2.6 The permit and any conditions to or modifications of the proposed permitted well work shall be issued by endorsement on or attachment to the "Permit" copy of the Application (Form WW-2(B), WW-3(B), or WW-4(B), as applicable).

5.2.7 Any permit issued under Section 5 shall expire automatically unless the permitted well work is commenced within 24 months of the date the permit was issued. No permit shall be extended to authorize the commencement of well work after the expiration date of 24 months.

5.2.8 No permit issued under Section 5 shall be transferable.

5.2.9 The determination to deny a permit under the provisions of W. Va. Code §22B-1-6(h), or to deny or condition a permit under the provisions of W. Va. Code §22B-1-11, shall be in writing and issued within 60 days from the date the Notice and Application in complete form with the required documents are filed.

5.2.10 Irrespective of the scope of the well work for which a permit was originally issued, a new application shall be filed for any well work subsequent to the expiration of the six-month or extended period for reclamation prescribed by W. Va. Code §22B-1-30.

### 5.3 Flat Well Royalty Leases -

5.3.1 Any Application for a well work permit subject to the provisions of W. Va. Code §22B-1-8 shall include the data required by subsection c thereof. Such information may be recorded on the applicable form of the Notice of Application in lieu of filing copies of the well operator's lease or leases or other continuing contract or contracts.

5.3.2 If the applicant's right to extract, produce, or market the oil or gas is based upon a lease or leases or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil and gas so extracted, produced, and marketed, then the affidavit to be furnished pursuant to W. Va. Code §22B-1-8(e) shall be submitted on Form WW-60.

### 5.4 Notice to Surface Owners of Record; Proof of Notice; Comments -

5.4.1.1 For purposes of notice to surface owners of record, pursuant to W. Va. Code §22B-1-9, the applicant well operator shall be entitled to assume, subject to performing the public record review described in Section 5.4.1.2 below, that the specific person(s) listed on the relevant tax ticket(s) maintained by the Sheriff pursuant to W. Va. Code §11A-1-8 (as distinguished from the listing of an estate, or of person(s) as "agent" or with "et al." or "heirs" or other designation indicating unspecified owners of record) were in fact surface owners of record when the tax ticket was prepared.

5.4.1.2 To establish that a surface owner identified on a tax ticket has not transferred an interest in the surface, the well operator must review, from the date the surface owner acquired the surface, or for ten years prior to the date of the review, whichever period is shorter, the "Grantor Index" and the "Fiduciary Index" maintained in the office of the Clerk of the County Commission. If the review identifies surface owner(s) in replacement of or in addition to the tax ticket listing, all successor names shall likewise be checked in the Grantor and Fiduciary Indexes to establish the surface owner(s) of record on the date the review is made.

5.4.1.3 Where the relevant tax ticket(s) list an estate, or list person(s) as "agent" or with "et al." or "heirs" or other designation indicating unspecified owners of record, the applicant well operator shall review the records in the office of the Clerk of the County Commission to determine whether the total number of such owners is more than three and, if the total number of such owners is three or less, the name(s) of the surface owner(s) of record on the date the review is made.

5.4.1.4 If the identification of the surface owners of record is made pursuant to the criteria of Sections 5.4.1.1 and 5.4.1.2 or 5.4.1.3 within 90 days of the date of filing of the application for a permit, the well operator need not review the records again prior to the filing.

5.4.2 Except where notice by publication is permissible under the provisions of W. Va. Code §22B-1-9(b), the notice to surface owners of record required by W. Va. Code §22B-1-9 shall consist of true, complete copies of all documents required under Section 5.2 of this rule and a copy of the "Instructions to the Surface Owner" provided as part of the Division's application form.

5.4.3 Proof of personal service may be made by the return of any sheriff or other official empowered by law to serve process, or by affidavit of personal service on Form WW-70 by any person, including but not limited to any employee or agent of the well operator. If service is effected by certified mail, service is effective upon mailing and the return receipt card or other postal receipt for certified mailing with postal stamp affixed or photocopy will be accepted as proof of service.

5.4.4 Notice of publication under the provisions of W. Va. Code §22B-1-9(b) shall be substantially as provided in Form WW-71. Proof shall be supplied by affidavit of publication from the newspaper.

5.4.5 No permit will be issued until all required proof of notice has been filed with the Director.

5.4.6 All comments filed pursuant to the provisions of W. Va. Code §22B-1-10 shall be in writing, and should contain the name, address and telephone number of the person filing the comment, the well operator's name and well number, and the approximate location of the proposed well site including district and county as indicated in the permit application. Comments may be accompanied by other pertinent documents in support of the comment. Other than as prescribed in this rule, no particular form for the comment is prescribed.

#### 5.5 Identification Markings -

5.5.1 Every well shall have attached or stamped, in a permanent manner, the API identification number which consists of the State (47), County (001 through 109), and permit number. Such numbering shall be no less than one half inch in height and detectable by any interested person approaching the well. Any additional information the well operator may desire to display may be incorporated into the permanent identification plat or stamp in such a manner that it will not confuse or distort the permanent API identification number.

5.5.2 Except as provided below, upon the completion of the plugging and filling of any abandoned well, a permanent monument or marker consisting of a length of pipe (minimum diameter size, 6") filled with concrete (or the equivalent thereof if approved by the Director) shall be erected over the well; the marker shall extend no less than 30 inches above the surface and not less than 10 feet below the surface and into the well, and shall be sealed with concrete for the purpose of making

the marker permanent. The API well identification number which consists of the State (47), County (001 through 109), and permit number shall be attached or stamped in a permanent manner to said monument; and such numbering shall be no less than one half inch in height and detectable by any interested person approaching the marker. The erection of the marker shall in no way interfere with the bleeder pipe from the well where such pipe is required, or the vent or other device installed pursuant to W. Va. Code §22B-1-24. Such marker shall be accurately described on Form WR-38, "Affidavit of Plugging and Filling Well" (see Section 13.6) as to time and manner of plugging and filling the well and shall be approved by the Director as a satisfactory landmark which may be used as such in the location of adjacent wells. Two permanent reference points with courses and distances from the abandoned well shall be designated and described on the plat required by Section 13.1 in the form prescribed by Section 9, accompanying Form WW-4, "Notice of Intention to Plug and Abandon a Well", or, if any change in the plat is necessary, accompanying Form IV-38, "Affidavit of Plugging and Filling Well" (see Section 13.6).

5.6 Parties Responsible - All contractors and drillers, including all service companies carrying on business or doing work in oil and gas fields in West Virginia, as well as lease holders and operators generally, shall take notice of and are hereby directed to observe and apply the provisions of W. Va. Code §22B-1 and this rule; and all contractors, drillers, service companies and operators shall be held responsible for violations thereof.

5.7 Evidence of Performance -

5.7.1 After the completion of the work authorized to be done by any permit required by W. Va. Code §22B-1-6, the permittee shall comply with the filing requirements of W. Va. Code §22B-1-22 and Section 12.

5.7.2 In addition to the requirements of Section 5.7.1, following completion of plugging a well, the permittee shall also comply with the affidavit requirements of W. Va. Code §22B-1-23 and Section 13.

Section 6. Plats, Notice to Coal Owner, Operator or Lessee

6.1 "Plats"

Department of Energy  
Division of Oil and Gas  
Leg. Rule, 22-1 and 22B-1  
Series 1, Sec. 6

6.1.1 The plat submitted pursuant to W. Va. Code §22B-1-12 before "drilling for oil or gas, or before fracturing or stimulating a well," shall contain the information required by W. Va. Code §22B-1-12 and otherwise by this rule in the form and manner provided in Section 9. A separate plat shall not be required for stimulating a well where stimulating is to be a part of the work for which a permit is sought and such fact is noted on Form WW-2(B), "Application for a Well Work Permit."

6.1.2 A plat is hereby required to accompany all applications for "fracturing any well" under W. Va. Code §22B-1-13 by means subsequent to and not an incident of previously permitted drilling, redrilling, deepening, pressuring or converting of such well. If the well to be fractured is an oil or gas well, the plat shall contain the same information required for plats by W. Va. Code §22B-1-12 and otherwise by this rule, and shall be in the form and manner provided in Section 9; and if the well is a liquid injection or waste disposal well, the plat shall contain the same information required for plats by W. Va. Code §22B-1-14 and otherwise by this rule, and shall be in the form and manner provided in Section 9.

6.1.3 The plat required by W. Va. Code §22B-1-14 before drilling a well for the introduction of liquids for the purposes provided for in W. Va. Code §22B-1-25 or for the introduction of liquids for the disposal of sewage, industrial waste or other waste or the effluent therefrom on any tract of land, or before converting an existing well for such purposes, shall contain the information required by W. Va. Code §22B-1-25 and otherwise by this rule and shall be in the form and manner provided in Section 9. Submission of a separate plat shall not be required before stimulating such a well where stimulating is to be a part of the well work for which a permit is sought and such fact is noted on Form WW-3(B), "Liquid Injection or Waste Disposal Well Work Permit Application."

6.2 Notice to Coal Operators, Owners or Lessees - A copy of the completed notice and application for any permit required by W. Va. Code §22B-1-6, including the associated plat and Construction and Reclamation Plan required by Section 5, shall be used as the form of the notice to Coal Operators, Owners or Lessees required by W. Va. Code §§22B-1-12, 22B-1-13, and 22B-1-14, and shall be mailed by registered or certified mail to coal operators, owners or lessees.

Section 7. Operational Regulations on Liquid Injection and Waste Disposal Wells

7.1 Tubing and Packer Arrangements; Variance; Regulation of Pressure -

7.1.1 Injection of water, other liquids, or wastes shall be accomplished through a tubing and packer arrangement with the packer set immediately above the injection zone, and the annulus between the tubing and casing shall be monitored by pressure sensitive devices or through production casing adequately seated and cemented that will allow monitoring of the annulus between the injection casing and last intermediate casing string or coal-fresh water casing string, as the case may be. Upon a proposal made in detail on Form WR-37, "Pre-Operations Certificate for Liquid Injection or Waste Disposal Well," a variance from any of the foregoing requirements may be granted upon a showing in the application or at the hearing by an individual operator that alternate prudent engineering practices will prevent migration outside the target information.

7.1.2 The injection pressure shall be regulated to minimize the possibility of fracturing the confining strata; and the Form WR-37, "Pre-Operation Certificate for Liquid Injection or Waste Disposal Well," submitted for each such well shall set forth the proposed operation in detail so as to demonstrate that this requirement will be satisfied.

7.2 Disposal of Connate or Polluted Water - No discharge of salt water, brackish water, or other water unfit for domestic livestock or other general use shall be made into the waters of the State. When underground disposal of such water is required, such disposal well and related facilities will be permitted only upon application and approval as required by applicable Federal and State laws. Disposal into the same formation from which the water is produced is preferable.

7.3 Pre-Operation Certificate -

7.3.1 The Director or his appointed representative shall be notified no less than 24 hours prior to mechanical integrity testing to allow the Director or his representative the opportunity to witness the tests. Copies of the results of all tests shall be submitted along with Form WR-37 as provided in Section 7.3.2.

Department of Energy  
Division of Oil and Gas  
Leg. Rule, 22-1 and 22B-1  
Series 1, Sec. 7

7.3.2 Upon successful completion and mechanical integrity testing, and prior to first injection into a permitted liquid injection or waste disposal well, the operator shall furnish the Division with a certification on Form WR-37, "Pre-Operation Certificate for Liquid Injection or Waste Disposal Well," indicating that all requirements of Sections 7.1 and 7.2 have been satisfied. The certification shall include:

7.3.2.1 Identification of the injection zone by name of geological target formation and depth (top and bottom of zone), the number of perforations, if applicable, or the interval of open hole;

7.3.2.2 The maximum bottom hole pressure in pounds per square inch and maximum rate of injection in barrels of liquids per hour or cubic feet of gases per hour;

7.3.2.3 A detailed identification of the materials being injected, including additives;

7.3.2.4 Specification of cathodic protection and other corrosion control measures;

7.3.2.5 Filters, if any;

7.3.2.6 The entire casing and cementing record, any packers and other special downhole equipment, and cement bond logs; Provided, that this data need not be included on Form WR-37, where the casing and cementing record is furnished on Form WR-35, "Well Operator's Report of Drilling, Fracturing and/or Stimulating," associated with the project;

7.3.2.7 Certification that the mechanical integrity of the well has been tested, and statement of the test method;

7.3.2.8 Facilities or systems to protect the integrity of the geological target formation or to prevent fracturing the confining strata; and

7.3.2.9 Application for variance, if any, from Section 7.1.

7.4 Partial Exemption for Certain Wells - Any liquid injection or waste disposal well in existence and used as such prior to July 1, 1969 shall be exempted from the requirements of Section 7.1, 7.2 or 7.3, provided the operator has, on or before July 1, 1979, filed an area plat or plats showing all of such

operator's liquid injection or waste disposal wells. Such exemption shall remain effective until such time as, in the opinion of the Director and upon notification thereof to the well owner or operator, it is determined that said well is leaking liquids to other wells or the surface.

7.5 Monitoring by Operator - The well owner or well operator of a liquid injection or waste disposal well shall monitor daily and submit to the Division monthly the injection pressures and volumes on Form WR-40 "Report for Liquid Injection, Waste Disposal or Enhanced Recovery." The Director may require more frequent or continuous monitoring and more frequent reporting if, in his opinion, good reason exists therefor.

7.6 Limitation - W. Va. Code §22B-1-14 and Section 7.1 through 7.5 do not apply to injection of water or other liquids into a well for the purpose of fracturing or stimulating a well or underground gas storage well operations, including injection periods.

#### 7.7 Authorization and Re-testing of Wells -

7.7.1 No liquid injection or waste disposal well shall be permitted to inject until a Pre-Operation Certificate (Form IV-37) is reviewed and approved by the Director.

7.7.2 The mechanical integrity of a liquid injection or waste disposal well must be demonstrated to the approval of the Director again within five years from the last test date in order for injection to continue.

### Section 8. Objections to Applications; Notice

8.1 Objection Filed by Coal Operators, Owners or Lessees - Objections by coal operators, owners, or lessees filed pursuant to W. Va. Code §§22B-1-15, 22B-1-16, or 22B-1-17, shall be made on Form OB-13, "Objection under W. Va. Code §22B-1-15, W. Va. Code §22B-1-16, or W. Va. Code §22B-1-17 to Proposed Permitted Work."

8.2 Objection By the Division - Objections by the Division to any proposed well work under W. Va. Code §§22B-1-15, 22B-1-16, 22B-1-17, shall be made in writing, and in the same detail required of objections by coal operators, owners or lessees.

#### 8.3 Notice to Applicant of Objection -

Department of Energy  
Division of Oil and Gas  
Leg. Rule, 22-1 and 22B-1  
Series 1, Sec. 8

8.3.1 If a coal operator, owner, or lessee files or the Division makes objection to proposed work under W. Va. Code §22B-1-15 or W. Va. Code §22B-1-16, the Division shall notify the applicant well operator by Form OB-14, "Notice to Well Operator of Objection under W. Va. Code §22B-1-15 or W. Va. Code §22B-1-16," attaching copies of all such objections.

8.3.2 If a coal operator, owner or lessee files or the Division makes objection under W. Va. Code §22-1-17, the Division shall notify the applicant well operator as provided by Section 8.4.

8.4 Notice to Shallow Gas Well Review Board of Objection; Copies to Applicant - If a coal operator, owner or lessee files or the Division makes objection under W. Va. Code §22B-1-17, the Division shall notify the Chairman of the Shallow Gas Well Review Board by Form OB-15, "Notice to Shallow Gas Well Review Board of Objection under W. Va. Code §22B-1-17 to a Proposed Drilling Site," attaching copies of all objections made pursuant to Sections 8.1 and 8.2 and all other information required by W. Va. Code §22B-1-17. Copies of all such documents shall be sent to the applicant well operator as his notice of objection.

## Section 9. Form and Contents of Plats

9.1 Statutory Requirements for Plats - Any plats required to be furnished under W. Va. Code §§22B-1-12 or 22B-1-14 (see Section 5.2) shall contain all information specified in the statutory section requiring the plat.

9.2 Additional Requirements for Plats - Any plat required to be furnished under W. Va. Code §§22B-1-12 or 22B-1-14, or under Sections 6.1.2 or 13.1, shall be recorded on Form IV-6, "Well Plat," and shall conform to the following standards of accuracy and depiction:

9.2.1 Accuracy - An accuracy of one part in 2500 is required for location of wells on land containing workable coal beds which are tributary to operator coal mines. All other plats require a minimum accuracy of one part in 200. The attained accuracy standard shall be stated on every plat.

9.2.2 Permanent Landmarks - At least two permanent monuments or landmarks with courses and distances to the subject well shall be shown on the basis of an on-the-ground survey and, if any such monument or landmark is not a permanently established

property corner, it shall be referenced to a permanently established property corner by courses and distances on the basis of an on-the-ground survey.

9.2.3 Physical Location of Well - Every well shall be drilled within ten feet of the exact well location designated on the plat. To facilitate compliance and verification, the plat for a new well shall designate at least two reference points from which, after the drilling site has been cleared and graded, the proposed well location can be accurately reestablished by the well operator and, if desired, subsequently verified by the oil and gas inspector or any interested person. When the survey party stakes the proposed well location, it shall flag or otherwise mark the reference points, which may be permanent (such as standing trees) or temporary (such as set stakes) and such reference points shall be beyond the limits of the drilling site but within 300 feet of the well location. A description of the reference points and their location with reference to the well location shall be indicated on a detail drawing or a narrative statement on the face of the plat.

9.2.4 Description - Landmarks and permanently established property corners used shall be named and described on all plats. They shall include standing corner trees, set stones, iron pipes, T-rails, or other manufactured monuments. Existing wells (operating or abandoned) shall also be considered established landmarks if said wells are accurately platted and on file with the Division. If landmarks used are not permanently established property corners, the landmarks must be adequately referenced to such property corners to permit their future location.

9.2.5 Method of Showing Property Lines - The courses and distances of all farm lines adjoining and those connecting the landmarks or permanently established property corners within the scope of the well location plat shall be shown thereon. All lines actually surveyed shall be shown on such plat in solid lines. Lines taken from deed descriptions only shall be shown by broken lines.

9.2.6 Proven Elevation - The elevation of the surface of the well location shall be given and it shall be tied to either a government bench mark or other point of proven elevation. The location of the government bench mark or the point of proven elevation shall be noted and described on the plat.

9.2.7 North-South Line - A north and south line shall be given and point to the top of the plat.

9.2.8 Scale and Size of Plat - If practicable, all plats shall be drawn to a scale of 1" = 2000' (1:24,000) or to even multiples thereof for each reduction of the plat photographically to a scale of 1" = 2000'. The plat shall be 8 1/2 inches by 14 inches in size.

9.2.9 Topographic Map Location of Well - The topographic map location of the well for which any permit application is made pursuant to W. Va. Code §22B-1-6 shall be shown on the plat by a "cross" with the measured distance in feet from the nearest 2.5 minute latitude and longitude intersection using the North East (upper right) border of the plat on a 7.5 minute (1:24,000) topographic map. Each plat shall indicate the quadrangle name of the topographic map used.

9.2.10 Wells - All wells within the scope of the plat, whether active, drilling, or abandoned, shall be shown. The scope of every plat shall be sufficient to show all wells within 1,200 feet of the well which is the subject of the application and, in the case of an application for a shallow gas well with a depth of 3,000 feet or more and which will penetrate a coal seam, the scope of the plat shall be sufficient to show all wells within 2,400 feet of the well which is the subject of the application. Each well so shown, including the subject well, shall bear a designation that permits the type (oil, gas, liquid injection under W. Va. Code §22B-1-41, underground storage, or storage observation) and status (active, abandoned, or drilling) of each such well to be determined by the use of:

9.2.10.1 API permit number (excluding State and County) for each well having such a permit number,

9.2.10.2 in parentheses, and following the API number if such is listed, the type and the status numbers provided below, and

9.2.10.3 the symbols provided below.

9.2.11 The kind and status numbers to be used shall be as follows:

9.2.11.1 Oil wells:

|                        |                     |
|------------------------|---------------------|
| 01- Shallow, active    | 04- Deep, active    |
| 02- Shallow, abandoned | 05- Deep, abandoned |
| 03- Shallow, drilling  | 06- Deep, drilling  |

9.2.11.2 Deep gas wells:

- 07- Production, active
- 08- Production, abandoned
- 09- Production, drilling
- 10- Underground storage, active
- 11- Underground storage, abandoned
- 12- Underground storage, drilling
- 13- Storage observation, active
- 14- Storage observation, abandoned
- 15- Storage observation, drilling

9.2.11.3 Shallow gas wells:

- 16- Less than 3,000 feet, production, active
- 17- Less than 3,000 feet, production, abandoned
- 18- Less than 3,000 feet, production, drilling
- 19- Less than 3,000 feet, underground storage, active
- 20- Less than 3,000 feet, underground storage, abandoned
- 21- Less than 3,000 feet, underground storage, drilling
- 22- Less than 3,000 feet, storage observation, active
- 23- Less than 3,000 feet, storage observation, abandoned
- 24- Less than 3,000 feet, storage observation, drilling
- 25- 3,000 feet or more, production, active
- 26- 3,000 feet or more, production, abandoned
- 27- 3,000 feet or more, production, drilling
- 28- 3,000 feet or more, underground storage, active
- 29- 3,000 feet or more, underground storage, abandoned
- 30- 3,000 feet or more, underground storage, drilling
- 31- 3,000 feet or more, storage observation, active
- 32- 3,000 feet or more, storage observation, abandoned
- 33- 3,000 feet or more, storage observation, drilling

Department of Energy  
Division of Oil and Gas  
Leg. Rule, 22-1 and 22B-1  
Series 1, Sec. 9

9.2.11.4 Liquid injection wells:

34- Active            35- Abandoned  
36- Drilling or being converted

9.2.11.5 Waste disposal wells:

37- Active            38- Abandoned  
39- Drilling or being converted

9.2.11.6 Gas injection wells:

40- Active            41- Abandoned  
42- Drilling or being converted

9.2.12 The symbols to be used shall be as follows:

|   |   |
|---|---|
| New drilling location                                       | ○   |
| New fracturing or stimulating location                      | ○/s                                       |
| Cancelled application or permit                             | ○enc                                      |
| Oil well  | ●   |
| Gas well  | ☀   |
| Dry hole  | ⊙   |
| Liquid injection well under <u>W. Va. Code</u><br>§22B-1-25 | ⊙ <sub>LI</sub>                           |
| Waste disposal well   | ⊙ <sub>WD</sub>                           |
| Abandoned well  | ⊙ - ☀ - ⊙ <sub>LI</sub> - ⊙ <sub>WD</sub> |

9.2.13 Other Surface Features - In addition to the surface features and owner identification data required by statute or by the foregoing specifications of Section 9.2, the plat shall also show the following surface features lying within the scope of the plat:

9.2.13.1 water wells within two hundred feet of the well for which any permit under W. Va. Code §22B-1-7 is being sought, except for liquid injection or waste disposal wells, in which case water wells within one thousand feet of the well shall be shown;

9.2.13.2 dwellings within two hundred feet of the well for which any such permit is being sought;

9.2.13.3 streams;

9.2.13.4 roads and highways; and

9.2.13.5 railroads with indication of the owners' names.

9.2.14 Names - The plat shall state the names of the surface owners and the royalty owners of the land at the well location.

9.3 Plat Certification - Surveys and plats shall be made under the supervision of a registered professional engineer or licensed land surveyor entitled and licensed by law to practice in the State of West Virginia. The certificate shall be signed and certified by the registered professional engineer or licensed land surveyor in the following manner:

"I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Energy."

9.4 Re-use of Plats -- Following issuance of the initial permit for drilling a well, any subsequent application for a new permit involving the same well may be accompanied by an accurate copy of the plat accepted by the Division for use with the permit issued for the most recent previous application, updated as necessary to reflect new data or additional data now required by statute or this rule; provided, that a new certification shall be necessary in the form required by Section 9.3.

9.5 Permanent Character of Plats - Every plat submitted under Section 9 shall be of permanent character, that is, on linen or plastic or other material of comparable quality and with india or other ink resulting in a depiction not subject to substantial degradation through time from exposure to ordinary conditions of temperature, humidity, and light

#### Section 10. Performance Bonds for Well Operators

10.1 Separate Bonds - Each permit application filed after the effective date of these regulations shall be accompanied by a separate bond with corporate surety or cash, or other collateral security in compliance with W. Va. Code §22B-1-26 and shall be submitted with Form OP-7, "Bond for Single Oil or Gas Well, Single Liquid Injection Well or Single Waste Disposal Well", except where (a) a blanket bond is being furnished pursuant to W. Va. Code §22B-1-26(c); or (b) the permit application is for a permit to plug a well which is already subject to corporate

surety, cash or collateral security which satisfied applicable requirements at the time such corporate surety, cash or collateral security was furnished. Any corporate surety bond, cash or collateral security furnished in connection with a permit issued prior to July 11, 1985 shall remain in effect for the benefit of the Department until such time as the well operator is issued any additional permit concerning the bonded well and such operator has furnished such new or additional corporate surety, cash or collateral security as may be required by these rules.

10.2 Blanket Bonds - Any blanket bond furnished after the effective date of these regulations shall have corporate surety or cash or other collateral security and shall be submitted with Form OP-8, "Blanket Bond for Oil and Gas Wells, Liquid Injection Wells, and Waste Disposal Wells". Any blanket bond with corporate surety, cash or collateral security furnished in connection with any permit or permits issued prior to July 11, 1985 shall remain in effect for the benefit of the Department until such time as the well operator is issued any additional permit and such well operator has furnished new or additional corporate surety, cash or collateral security complying with the Act; provided, that if a blanket bond furnished prior to July 11, 1985, complies with the requirements of the Act, a new blanket bond shall not be required to be submitted with a permit application; provided further, that if a permit application is for a permit to plug a well which is already subject to corporate surety, cash, or collateral security which satisfied applicable requirements at the time such corporate surety, cash or collateral security was furnished, no additional corporate security, cash or collateral security shall be required.

#### Section 11. Operational Criteria

11.1 Casing Not Exclusive - In addition to the casing required by W. Va. Code §§22B-1-18, 22B-1-19, 22B-1-20 and 22B-1-21, there shall be used in each well such material and equipment and there shall be employed such additional procedures as are necessary for the purpose of separating high pressure zones from low pressure zones, the producing horizons, the water bearing strata, and mineable coal zones for the life of the well.

#### 11.2 Multiple Casing Through Coal Seams -

11.2.1 The coal protection casing required by W. Va. Code §§22B-1-18 through 22B-1-20 to be installed through the

workable coal seam or seams shall be in addition to the production casing.

11.2.2 The coal protection casing required by W. Va. Code §22B-1-18 shall have cement circulated in the annular space outside said casing. The volume of cement needed shall be calculated by using approved engineering methods to assure the return of the cement to the surface. In the event cement does not return to the surface, every reasonable attempt will be made to fill the annular space by introducing cement from the surface.

11.3 Fresh Water Casing - The fresh water protective casing required by W. Va. Code §22B-1-21 shall extend at least 30 feet below the deepest fresh water horizon (that being the deepest horizon which will replenish itself and from which fresh water or usable water for household, domestic, industrial, agricultural, or public use may be economically and feasibly recovered) and shall have cement circulated in the annular space outside said casing. The volume of cement needed shall be calculated using approved engineering methods to assure the return of the cement to the surface. In the event cement does not return to the surface, every reasonable attempt will be made to fill the annular space by introducing cement from the surface. If the coal protection casing is cemented to the surface in accordance with prescribed procedure, this may also be considered a fresh water protective casing for water strata above the coal.

11.4 Cement Strength - Cement placed in the annular space around any casing shall be allowed to set to a minimum compressive strength of 500 pounds per square inch using approved engineering data for the type of cement used. The waiting time for cement used in compliance with Section 11.5 shall be eight hours. The waiting time on any other cement shall in no case be less than eight hours.

11.5 Cement Type - Cement used to fill the annular space around the casing required in Sections 11.2 and 11.3 shall be American Petroleum Institute Class A Ordinary Portland cement with no greater than three percent calcium chloride and no other additives; provided, that if the well operator furnishes satisfactory proof that different cement types are adequate, the Director may approve use of such different cement types.

## Section 12. Well Records

12.1 Well Records Made During Permitted Work - The well operator or his contractor (drilling contractor or other

contractor, as appropriate) shall keep at the well location a copy of the application as permitted, including the associated plat and Construction and Reclamation Plan required by Section 5.2, and the well operator or his contractor (drilling contractor or other contractor, as appropriate) shall also make and preserve at the well location accurate records of all well work performed pursuant to the permit. The records shall be complete enough to support, as applicable, the entries of well work done and related data on Form WR-35, "Well Operator's Report of Drilling, Stimulating or Physical Change," Form WR-36, "Well Operator's Report of Initial Gas-Oil Ratio Test," Form WR-37, "Pre-Operation Certificate for Liquid Injection or Waste Disposal Well," and Form WR-38, "Affidavit of Plugging and Filling Well;" but such forms WR-35 through WR-38 shall reflect data discovered or changes made after the permitted well work has been finished and before the forms are filed. Unless such records of well work performed are prepared by the well operator or owner, a copy of all such records shall be delivered to the well owner or operator.

#### 12.2 Filing of Well Record and Related Forms -

12.2.1 Within 90 days after the completion of permitted well work, two copies of Form WR-35, "Well Operator's Report of Drilling, Fracturing and/or Stimulating or Physical Change," containing in proper form the geological information required by W. Va. Code §22B-1-22, Form WR-36, "Well Operator's Report of Initial Gas-Oil Ratio Test," (except that, where the well has not been connected within such 90-day period to pipelines or production tanks, Form WR-36 shall be filed no more than 15 days after such connection), Form WR-37, "Pre-Operation Certificate for Liquid Injection or Waste Disposal Well," and Form WR-38, "Affidavit of Plugging and Filling Well," shall be filed by the well owner or operator with the Director. Such forms need not repeat well record information for any work (whether permitted or not) performed prior to and not part of the permitted work to which said forms apply. Such forms shall correct or add to the well log and other records made and preserved at the well location by specifying the casing, treatment, or physical changes performed after completion of the permitted work, and the additional formations or corrected information discovered, by electric logs or other means, after completion of the permitted work.

12.2.2 Deep Well Confidential Information; Filing of Well Logs -

12.2.2.1 Within 90 days after the completion of drilling or recompletion of a deep well, the well operator shall file a copy of the well log and the electrical, radioactive or other similar conventional log if such logs have been performed. In addition, as soon as practicable, the well operator shall file a copy of drill stem test charts, formation water analysis, porosity, permeability or fluid saturation measurements, core analysis, and lithologic log or sample description as compiled; provided, that no such additional information shall be required unless the well operator has compiled such information in the ordinary course of business. No interpretation of the data is required to be filed.

12.2.2.2 All information furnished with respect to a deep well marked "confidential" shall be kept confidential for one year following the date the information is required to be filed hereunder unless the well operator gives the Director written permission to release such information at an earlier date.

12.2.2.3 For good cause shown by the operator, the West Virginia Oil and Gas Conservation Commissioner may extend the period of confidentiality for one year. The total period of confidentiality shall not exceed three years.

12.3 Restriction of New Application - Except for good cause shown, no application required by W. Va. Code §22B-1-6 may be filed for any work after the initial completion of a well unless all forms required by Section 12.2 have been completed and filed with the Division.

### Section 13. Plugging, Abandonment and Reclamation

13.1 Notice and Application to Plug and Abandon; Time of Filing -

13.1.1.1 The Notice of intention to plug and abandon a well required by W. Va. Code §22B-1-23 shall conform to Section 5.2.3.

13.1.1.2 The well operator shall also submit copies of all logs in his possession upon specific request by the Director pursuant to W. Va. Code §22B-1-6(c)(10)(ii).

13.1.2 Completed Forms WW-4(A) and WW-4(B) shall in all cases be filed with the Division and delivered to the coal

operator, owner or lessee in the manner and within the time limits set out in subsections (a), (b), and (c) of W. Va. Code §22B-1-23 for "notices" referred to therein.

13.1.3 The owner or operator of every well presumed to have been abandoned under the provisions of W. Va. Code §22B-1-19 shall file Form WW-4 within 60 days after such abandonment, unless the Division waives this requirement for good cause shown.

13.2 Work Order; Manner and Method of Plugging -

13.2.1 An applicant for a permit to plug a well shall set forth a detailed statement of the manner in which the work of plugging and filling such well is to be performed, including:

13.2.1.1 location (by depth),

13.2.1.2 kind and length of plugs to be used and the method chosen to insure that no gap exists between the bottom of the coal protection string of casing and the expanding cement plug thereunder,

13.2.1.3 plans for mudding, cementing, and filling,

13.2.1.4 plans for testing, and for shooting and removing casing, and

13.2.1.5 all other pertinent information regarding said plugging and filling, all of which shall be in compliance with W. Va. Code §22B-1-24. The information shall be submitted on Form WW-4(B), "Application to Plug and Abandon a Well".

13.2.2 Any well operator proposing to plug or to clean out and replug a well in the manner specified by W. Va. Code §22B-1-24(c), shall furnish the alternate cost estimates for performing such well work in the manner specified by W. Va. Code §22B-1-24(d)(3) only in the event a coal operator, owner, or lessee has filed a Form OB-16, "Request by Coal Operator, Owner, or Lessee for Plugging under W. Va. Code §22B-4-10(d)".

13.3 "Verbal Permission" to Plug -

13.3.1 Verbal permission may be given pursuant to W. Va. Code §22B-1-33(c) in the event the well to be plugged and abandoned is one on which drilling or reworking operations have been continuously progressing pursuant to authorization granted by the Division. Any such verbal permission shall be given by

the Director, or the supervising inspector, or any inspector who is available to supervise the plugging work. Unless such verbal approval is given by the Director, the well operator shall notify the Director's office by telephone of such verbal approval no later than the next regular working day.

13.3.2 Unless the well operator proposes to plug the well in a manner allowed by W. Va. Code §22B-1-24(d)(3), the well operator shall contact the coal operator or the coal owner or lessee who has filed a declaration under W. Va. Code §22B-1-36, so as to provide the coal owner, operator or lessee the best feasible opportunity to make a plugging request under Section 13.5.

13.4 Objections to Proposed Plugging - Objections to the proposed plugging of a well, whether by the Division or by any affected person, shall not be made except for violation or impending violation of the provisions of W. Va. Code §22B-1-23 or this regulation or of W. Va. Code §22B-1-24 or Section 15. The Director shall promptly rule on such objections at a hearing to be held after providing no less than five days' notice to the applicant and objectors.

13.5 Plugging Method Request by Coal Operator or Coal Seam Owner -

13.5.1 The request by a coal operator or coal seam owner made pursuant to W. Va. Code §22B-1-24(d), for a well to be plugged in any manner allowed by W. Va. Code §22B-1-24(d)(3) rather than by the method provided in W. Va. Code §22B-1-24(c), shall be made on Form OB-16, "Request by Coal Operator, Owner, or Lessee for Plugging under W. Va. Code §22B-1-24(d)".

13.5.2 The well operator or owner in his sole discretion may waive the provision in W. Va. Code §22B-1-24(d) that such request "must be filed in writing with the Division prior to the scheduled plugging of the well". In the event of such waiver, the cost of undoing any part of the plugging work in order to comply with the coal operator's or coal seam owner's request shall be treated as a part of the cost of complying.

13.5.3 The Division shall make findings and issue an order in accordance with W. Va. Code §22B-1-24(d)(2) by endorsement on or attachment to Form WW-4.

13.6 Statutory Affidavit - The affidavit required by W. Va. Code §22B-1-23 and Section 12.2 shall be made on Form

WR-38, "Affidavit of Plugging and Filling Well". The affidavit shall be executed by at least two parties doing the actual work, whether they are employees of a service company or a plugging contractor, or of the well owner or well operator.

Section 14. Plugging Methods

14.1 Materials Used in Plugging - The non-porous materials and cements mentioned in W. Va. Code §22B-1-24 must be specified in the work order portion of Form WW-4(B), "Application to Plug and Abandon a Well". Materials and cements must be of a kind and quality accepted by the oil and gas industry and approved by the Division as suitable for the intended purpose and which otherwise comply with all provisions of law and accepted standards. The Director may approve use of non-standard material or cement.

14.2 Cleaning Out and Replugging Application; Objections; Order -

14.2.1 Application pursuant to W. Va. Code §22B-1-24(e) to clean out and replug a previously plugged well shall be made by completed Form WW-4, "Notice of Intention and Application to Plug and Abandon a Well", and by the associated comments required by Section 13.1 to accompany Form WW-4.

14.2.2 Objections to a Form WW-4 application to clean out and replug a well, whether by the Division or by any affected person, shall not be made except for violation or impending violation of the provisions of W. Va. Code §22B-1-23 or Section 13 or of W. Va. Code §22B-1-24. If such an objection is filed or made, a hearing date shall be set and notice given by the Division by endorsement on the objection, mailed in accordance with W. Va. Code §22B-1-24(e). The endorsement shall indicate the date, time and location of the hearing, identifying the well by reference to the API number.

14.2.3 The Division's order permitting or rejecting such application shall be endorsed on the Form WW-4 application and shall be mailed to the parties indicated in the method provided by W. Va. Code §22B-1-24(e).

Section 15. Reports

15.1 Annual Report of Oil and Gas Production -

15.1.1 An annual report of oil and gas production from each lease or tract shall be filed with the Director on or before the succeeding March 31. This report shall be on Form WR-39, "Report of Annual Production" or in such other form as the Director may approve. The report must identify and state the production from every oil and gas well not yet plugged and abandoned, regardless of the status of the well. The data shall be submitted by either the well operator or the well owner and shall be in the smallest units of measurement available, by well, lease or unit. Oil shall be measured in barrels, and gas shall be measured in thousand cubic feet.

15.1.2 Measurement of Oil - The volume of oil production shall be determined through the standard practices of common carriers in the State of West Virginia. The report on volume of oil shall be the same volume on which the royalty interest was determined and shall be of acceptable "pipeline quality".

15.1.3 Measurement of Gas -

15.1.3.1 If a meter has been set for each well, the gas production for each well shall be reported, with each well identified by API number or, if no API number exists, by the operator's well number.

15.1.3.2 If common or master meter measurement is in use, the production from each common or master meter shall be reported, and the wells subject to common measurement shall be identified by API well number or, if no API number exists, by the operator's well number, and the production estimated for each such well shall be reported if such estimates are made.

15.1.3.3 If calculated value is in use and no measurement of gas is available for an individual well or group of wells, the calculated volume of gas production using accepted engineering methods shall be reported, and the wells so measured shall be identified by API well number or, if no API number exists, by the operator's well number, and the production estimate for each such well shall be reported if such estimates are made.

15.2 Accidents - If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or his contractor shall give notice, stating the particulars of the explosion or accident, to the District Oil and Gas Inspector or the Director.

Section 16. Reclamation

16.1 Reclamation under the Construction and Reclamation Plan -

16.1.1 A proposed reclamation method for construction of roads, drilling locations, and pits, if any, or alternative overflow prevention facilities, shall be submitted on Form WW-9 with the application for any permit required by W.Va. Code §22B-1-6, except a permit to plug a well. Such proposed reclamation methods shall be approved by the Director or his designate, prior to the issuance of the permit, all reclamation shall be done under the supervision of the Director. The reclamation may be altered from that set out in said Form WW-9, if found necessary, with the consent of the Director or his designate, due to topography or other conditions not apparent upon initial submission and approval of the proposed reclamation methods.

16.2 Access Roads - All access roads shall be constructed and maintained so as to prevent excess sedimentation, maintain natural drainage areas and, if practicable, to direct or carry away from disturbed areas surface water run-off from undisturbed areas.

16.3 Drilling Sites - Drilling sites shall be constructed and maintained to prevent surface run-off carrying excessive sedimentation from the site, to confine all materials leaked or spilled as a result of drilling operations to the drilling site and to prevent excess sedimentation by placing in any stream any material moved or cut. Upon the plugging of a non-productive well, whether as a continuous operation with other permitted well work or otherwise, all cementing and other waste materials resulting therefrom shall be retained on the drilling site.

16.4 Pits - All field constructed pits which are used to contain wastewater shall meet the following minimum requirements:

16.4.1 Any pit shall be constructed and maintained so as to prevent seepage, leakage or overflows and to maintain its integrity.

16.4.2 Provisions shall be made for diverting surface water from the pits.

16.4.3 When an operator is unable to maintain adequate freeboard to prevent overflow from any pit, the District Inspector shall be notified by the well operator and an additional pit (or alternative overflow facility) shall be constructed under the supervision of the Director which shall also meet the requirements specified in this section (16.4).

16.4.4 If existing soil is not suitable to prevent seepage or leakage, other materials which are impervious shall be used as a liner for a pit. Any such liner shall be installed in such a manner as to protect the structural integrity of both pit and liner.

16.4.5 Dikes associated with pits shall be constructed of compacted material and maintained with a slope that will preserve the structural integrity of the dike.

16.4.6 Any unlined dike constructed of existing soil shall be free of trees and other organic matter, large rocks, or any other material which could be reasonably expected to adversely affect the structural integrity of such dike.

16.4.7 Reclamation of the pits shall not cause an overflow and/or discharge of materials to water of the State.

16.4.8 All drilling pits and alternative overflow prevention facilities shall be constructed, maintained and reclaimed so as not to be left in such condition as to constitute a hazard or to prevent use of the surface for agricultural purposes after the expiration of the six-month or extended period for reclamation prescribed by W. Va. Code §22B-1-30.

#### 16.5 Surface and Underground Water Pollution -

16.5.1 Before commencing to drill any well for oil and gas, the well owner or operator shall make proper and adequate provision to prevent surface and underground water pollution.

16.5.2 When rotary drilling penetrates a formation known to contain substantial amounts of salt water, drilling will continue to the next casing point by drilling with mud, foaming, or other satisfactory method for the purpose of isolating the salt water in the formation or preventing the discharge of salt water per se into a fresh water horizon, or above the surface of the ground. In the case of foaming, it is recognized that a certain amount of salt water, mixed with cuttings, will be

discharged above the surface of the ground which will be contained in sump pits no larger than necessary for this purpose.

16.6 Notifications Prior to Commencement of Work - Prior to the construction of roads, locations and pits for any permitted well work, the operator or his contractor shall notify the appropriate oil and gas inspector and allow the opportunity of inspecting and approving the construction and method of reclamation for all proposed areas to be disturbed in siting, drilling, completing or producing the well. In addition, the well operator or his contractor shall notify the appropriate district oil and gas inspector 24 hours before actual permitted well work is commenced.

16.7 Requirements for Production and Gathering Pipelines -

16.7.1 This rule prescribes the minimum requirements for the safe and efficient installation of all production and gathering pipelines installed, relocated or replaced after June 9, 1983, which are not regulated by United States Department of Transportation minimum safety standards applicable to pipelines.

16.7.2 The Director reserves the right to direct the burial of any line installed under this regulation to protect the public safety, by order issued after notice and hearing under Series 9.

16.7.3 Subject to the reservation in Section 16.7.2 of production and gathering lines subject to this rule shall conform with the following:

16.7.3.1 Lines shall be buried where practical and reasonable; and practical and reasonable shall be construed to mean lines should be buried in the following situations:

16.7.3.1.1 Where the line crosses agricultural land as defined in W. Va. Code §19-19-2;

16.7.3.1.2 Where an unburied line would prohibit use of a pre-existing private roadway or other means of access to a part or all of surface land;

16.7.3.1.3 Where the line cannot more practically and reasonably be securely suspended to cross stream beds;

16.7.3.1.4 Where the line crosses a public road, in which event it shall be buried and otherwise installed in accordance with the rules of the public agency having jurisdiction over the road; and

16.7.3.1.5 Where the Director decides prior to installation that burial would be practical and reasonable.

16.7.3.2 All buried lines shall be installed with a minimum of 18 inches of cover, except where solid rock is encountered, in which case the minimum cover shall be six inches;

16.7.3.3 Whenever a buried line crosses a pre-existing public or private roadway, the location of the line shall be clearly marked at the point of crossing by an appropriate marker; and

16.7.3.4 A suitable conductive wire shall be installed with plastic pipe to facilitate locating it with an electronic pipe locator; provided, that any other suitable material or means for accomplishing this purpose may be employed.

16.7.4 Notwithstanding Section 16.7.3 of this rule, the surface owner(s) of record of any tract subject to the provisions of W. Va. Code §22B-1-30(d) shall have the right to prescribe that a pipeline or specified parts thereof need not be buried. The prescription shall be on Form WR-75, "Permission Not to Bury Production or Gathering Line", unless it is included in the recorded right-of-way or lease under which the pipeline is to be installed, which right-of-way or lease was granted by the then surface owner of record. Once executed and delivered to the person who proposes to install and operate the line, the prescription may not be revoked by any subsequent surface owner(s) of record.

16.7.5 This rule shall not be construed to prohibit a surface owner from preparing a safe crossing of a pipeline for a new means of access to another part of his tract.

#### Section 17. Preventing Waste

17.1 Equipment - All well owners or operators, contractors, drillers, pipeline companies, or gas distributing companies producing or transporting oil or gas for any purpose, shall use every possible precaution in accordance with accepted and approved methods to prevent waste of oil or gas, and to prevent the pollution of the water of the State in drilling and

producing operations, or in transporting or distributing such products, and shall not wastefully utilize oil or gas or allow the same to leak or escape from natural reservoirs, wells or pipelines.

17.2 Commercial Well Properly Equipped - Whenever oil or natural gas in commercial quantities, in a well-defined oil or gas-bearing stratum, known to contain oil or natural gas in such quantities, is encountered in any well drilled for oil or gas in this State, all such strata shall be adequately protected from infiltrating waters.

17.3 Protection of High Pressure Wells - On all wells where high pressure and large volumes can be reasonably expected, properly working pressure blowout preventer equipment shall be used on the inner string of casing at all times. When the inner string of casing has been placed in the well and cemented in, said casing and blow-out equipment (both blind and pipe rams, or equivalent) shall be installed and tested by operation and pressure to a minimum pressure which is commensurate with the objective formation pressure before drilling is continued.

17.4 Preparation for Drilling In - Equipment for conserving oil and gas shall be provided before drilling in. In all proved or well-defined oil or gas fields or where it can be reasonably expected that oil or gas in commercial quantities will be encountered, adequate preparations shall be made for the conservation of oil or gas before drilling any well.

17.5 Multi-Zone Production - So far as it is practical to do so, gas being produced at a high pressure should be separated in the well from that being produced at a substantially lower pressure by means of casing, tubing, casing heads and packers, in order to eliminate the flow of high pressure gas into the low pressure sands.

17.6 Drilling Deeper - Nothing in this rule shall be construed to prevent or discourage drilling deeper in search for oil or gas in any well.

## 18. Variānces

Upon request, or upon his own initiative, the Director may grant a variance from any other requirements of this Series upon a showing by an operator that alternative practices will satisfy the requirements of The West Virginia Energy Act and exhibit sound engineering practice. Prior to taking final action

Department of Energy  
Division of Oil and Gas  
Leg. Rule, 22-1 and 22B-1  
Series 1, Sec. 17

to grant or deny such a variance the Director shall provide notice of his proposed action to the public and to the surface owners of record and any coal owner, operator or lessee and provide all such persons with an opportunity to comment on such a proposal.