

**WEST VIRGINIA
SECRETARY OF STATE
NATALIE E. TENNANT
ADMINISTRATIVE LAW DIVISION**

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OFFICE WEST VIRGINIA
SECRETARY OF STATE

Form #6

**NOTICE OF FINAL FILING AND ADOPTION OF A LEGISLATIVE RULE AUTHORIZED
BY THE WEST VIRGINIA LEGISLATURE**

AGENCY: DEP - Office of Oil & Gas TITLE NUMBER: 35

AMENDMENT TO AN EXISTING RULE: YES NO

IF YES, SERIES NUMBER OF RULE BEING AMENDED: 4

TITLE OF RULE BEING AMENDED: Oil and Gas Wells and Other Wells

IF NO, SERIES NUMBER OF RULE BEING PROPOSED: _____

TITLE OF RULE BEING PROPOSED: _____

THE ABOVE RULE HAS BEEN AUTHORIZED BY THE WEST VIRGINIA LEGISLATURE.

AUTHORIZATION IS CITED IN (house or senate bill number) SB 273

SECTION 64-3-1(q), PASSED ON March 13, 2010

THIS RULE IS FILED WITH THE SECRETARY OF STATE. THIS RULE BECOMES EFFECTIVE ON THE
FOLLOWING DATE: April 15, 2010


Authorized Signature

FILED

2010 APR 15 PM 4: 09

TITLE 35
 LEGISLATIVE RULE
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 OIL AND GAS

OFFICE WEST VIRGINIA
 SECRETARY OF STATE

SERIES 4
 OIL AND GAS WELLS AND OTHER WELLS

§35-4-1. General.

1.1. Scope. -- This rule shall govern and apply to proceedings under W. Va. Code § 22-6-1, et seq., related to oil and gas wells and other wells. Certain portions of this series shall govern and apply to W. Va. Code § 22-12-1, et seq. related to groundwater protection and to W. Va. Code § 22-10-1, et seq. related to abandoned wells.

1.2. Authority. -- W. Va. Code §§ 22-1-3 and 22-6-2.

1.3. Filing Date. -- April 15, 2010

1.4. Effective Date. -- April 15, 2010

1.5. 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 Chief. The Office of Oil and Gas reserves the right to amend any forms prospectively to accord more fully with W. Va. Code § 22 and this rule.

§35-4-2. Definitions.

Unless the context in which used clearly requires a different meaning, the definitions contained in W. Va. Code §§ 22-1-2 and 22-6-1 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 forty-two (42) U.S. gallons of two hundred thirty-one (231) cubic inches each of liquid, including slurries, at a temperature of sixty (60) degrees Fahrenheit.

2.3. "Chief" shall mean Chief of the Office of Oil and Gas as designated by the Secretary of the Department of Environmental Protection.

2.4. "Coal permit" shall mean a valid current surface mining permit issued by the Department of Environmental Protection.

2.5. "Coal permit holder" shall mean the party that is registered with the West Virginia Office of Miners' Health, Safety, and Training as the operator of that permit. The "coal permit holder" may also be known or referred to as the "coal mine operator."

2.6. "Completion of the drilling process," as used in W. Va. Code §22-6-30, shall mean the date on which a drilling rig ceases operation on the drilling site for more than thirty (30) consecutive days.

2.7. "Cubic foot of gas" shall mean the volume of gas contained in one (1) cubic foot of space at a standard pressure base and a standard temperature base. The standard pressure base shall be fourteen and seventy-three hundredths pounds per square inch absolute (14.73 psia), and the standard temperature base shall be sixty (60) degrees Fahrenheit.

2.8. "Day" shall mean a period of twenty-four (24) consecutive hours.

2.9. "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 § 22-6 may be served. *See* section 10.3 below.

2.10. "Designated mining area" shall mean an area of real property subject to a coal permit, further depicted or described in the Notice of Designated Mining Area, where excavation work will be conducted within the succeeding twelve (12) months.

2.11. "Excavation work" shall mean work where vegetation, timber, topsoil or overburden will be moved, removed or placed by surface mining operations and shall include surface impacts incident to underground coal mine operations.

2.12. "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.

2.13. "Gas well" shall mean any well which produces or appears capable of producing a ratio of six thousand (6,000) cubic feet of gas or more to each one (1) barrel of oil on the basis of the initial gas-oil ratio test.

2.14. "Impoundment" shall mean a man-made excavation or diked area for the retention of fresh water and into which no wastes of any kind are placed.

2.15. "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.

2.16. "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.

2.17. "Natural gas pipeline" shall mean a pipeline, other than an interstate or utility pipeline, that is used to transport natural gas.

2.18. "Notice of Designated Mining Area" shall mean a written notice from a coal permit holder that contains the following information: (i) A copy of the mine plan permit maps previously submitted to the Department of Environmental Protection in connection with the permit, currently pursuant to W. Va. Code § 22-3-9(12) and 38 CSR 2 § 3.4, with a discernable boundary identifying the designated mining area where excavation work will be conducted within the following twelve (12) month period.; and (ii) The general location of all oil and gas wells and pipelines known to the coal mining permit holder or operator or identified in the coal permitting process, together with any GPS or other survey information in the possession of the coal permit holder that identifies the location of any natural gas pipelines in the designated mining area; and (iii) The office telephone number and mailing address for the mine where the work will occur and identification of the location of any staffed guard gate or entrance.

2.19. "Oil well" shall mean any well which produces or appears capable of producing a ratio of less than six thousand (6,000) cubic feet of gas to each one (1) barrel of oil on the basis of the initial gas-oil ratio test.

2.20. "Pit" shall mean a man-made excavation or diked area that contains or is intended to contain an accumulation of process waste fluids, drill cuttings, and/or any other liquid substance that could impact surface water or groundwater.

2.21. "Surface owner of record" and "owner of record of the surface" as used in W. Va. Code § 22-6-9 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.

2.22. "Underground storage well" shall mean a gas well subject to the provisions of W. Va. Code § 22-9-1, et seq.

2.17. "Use" for the purpose of W. Va. Code § 22-6-19 shall have the same meaning as "Active Status" is defined in 35 CSR 5, which is "any well producing oil or gas in commercial quantities, or being operated pursuant to underground injection control permits, or being operated in conjunction with the underground storage of hydrocarbons."

§35-4-3. 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), 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 §22 are as follows:

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

3.2.b. Form VI-27, "Notice of Violation;"

3.2.c. Form VI-28, "Imminent Danger Order;"

3.2.d. Form VI-29, "Notice Extending Abatement Time;"

3.2.e. Form VI-30, "Order for Failure to Abate Violation;" and

3.2.f. Form VI-31, "Notice of Abatement."

§35-4-4. 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 subsection 3.2. Such finding and orders shall not be construed to limit the Office's power to initiate any other lawful proceedings concerning violations of W. Va. Code §22-6-1 et seq. or this rule.

§35-4-5. Permits, Notice, Review.

5.1. Reserved.

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

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

5.2.a.1. A "Notice of Application for a Well Work Permit" in the form prescribed by subsection 5.4 below;

5.2.a.2. A plat in the form prescribed by section 9 below;

5.2.a.3. A bond in one of the forms prescribed by section 10 below, or in lieu thereof cash or collateral security allowed by W. Va. Code § 22-6-26;

5.2.a.4. Form WW-9, "Construction and Reclamation Plan," applicable to the plan required by W. Va. Code § 22-6-6(d) and a plan for performing the reclamation required by W. Va. Code § 22-6-30 and section 16 below;

5.2.a.5. The applicable fee(s), which include:

5.2.a.5.1. Four Hundred Dollars and Zero Cents (\$400.00) for the application to conduct well work, pursuant to W. Va. Code § 22-6-2(c)(10);

5.2.a.5.2. One Hundred Fifty Dollars and Zero Cents (\$150.00) for the special reclamation fee, pursuant to W. Va. Code § 22-6-29(b); and/or

5.2.a.5.3. One Hundred Dollars and Zero Cents (\$100.00) for a general permit registration fee.

5.2.a.6. If applicable, the consent required by W. Va. Code § 22-6-21.

5.2.b. 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.c. An application for any liquid or waste disposal well permit required by W. Va. Code § 22-6-6, 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.c.1. A "Notice of Liquid Injection or Waste Disposal Application" in the form prescribed by subsection 5.4;

5.2.c.2. A plat in the form prescribed by section 9 below;

5.2.c.3. A bond in one of the forms prescribed by section 10 below, or in lieu thereof the cash or collateral security allowed by W. Va. Code § 22-6-14;

5.2.c.4. Form WW-9, "Construction and Reclamation Plan," applicable to the reclamation required by W. Va. Code § 22-6-30 and section 16 below; and

5.2.c.5. With the initial application to drill a well, the fees required by W. Va. Code §§ 22-6-2 and 22-6-29. 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.d. 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.d.1. A "Notice of Application to Plug and Abandon a Well," in the form prescribed by subsection 5.4 below;

5.2.d.2. A plat in the form prescribed by section 9 below; and

5.2.d.3. A bond in one of the forms prescribed by section 10 below, or in lieu thereof cash or collateral security required by W. Va. Code § 22-6-23.

5.2.e. The applicant for any permit mentioned in this rule must file an original and two (2) copies of the application and an original and four (4) copies of the notice, plat and, except for application for a permit to plug a well, a construction and reclamation plan.

5.2.f. 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.g. Any permit issued pursuant to this section shall expire automatically unless the permit well work is commenced within twenty-four (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 twenty-four (24) months.

5.2.h. No permit issued under this section shall be transferable.

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

5.2.j. 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 § 22-6-30.

5.3. Flat Well Royalty Leases.

5.3.a. Any application for a well work permit subject to the provisions of W. Va. Code § 22-6-8 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.b. 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 a flat well royalty or any similar provision for compensation to the owner of the oil or gas in place that 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 § 22-6-8(e) shall be submitted on Form WW-60.

5.4. Notice to Surface Owners of Record; Proof of Notice; Comments.

5.4.a. For purposes of notice of surface owners of record pursuant to W. Va. Code § 22-6-9, the applicant well operator shall be entitled to assume, subject to performing the public record review described in subdivision 5.4.b. 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 or record), were in fact surface owners of record when the tax ticket was prepared.

5.4.b. 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 (10) 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.c. 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 records in the office of the Clerk of the County Commission to determine whether the total number of such owners is more than three (3) and, if the total number of such owners is three (3) or less, the name(s) of the surface owner(s) of record on the date the review is made.

5.4.d. If the identification of the surface owners of record is made pursuant to the criteria of subdivisions 5.4.a. and 5.4.b. or 5.4.c. within ninety (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.e. Except where notice by publication is permissible under the provisions of W. Va. Code § 22-6-9(b), the notice to surface owners of record required by W. Va. Code § 22-6-9 shall consist of true, complete copies of all documents required under subsection 5.2 of this rule, and a copy of the "Instructions to the Surface Owner" provided as part of the Office's application form.

5.4.f. 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 affected 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.g. Notice of publication under the provisions of W. Va. Code § 22-6-9(b) shall be substantially as provided in Form WW-71. Proof shall be supplied by affidavit of publication from the newspaper.

5.4.h. No permit will be issued until all required proofs of notice have been filed with the Chief.

5.4.i. All comments filed pursuant to the provisions of W. Va. Code § 22-6-10 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.a. 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 number shall be no less than one-half (1/2) 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 in the permanent identification plat or stamp in such a manner that it will not confuse or distort the permanent API identification number.

5.5.b. 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 six (6) inches) filled with concrete (or the equivalent thereof if approved by the Chief) shall be erected over the well; the marker shall extend no less than thirty (30) inches above the surface and not less than ten (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 (1/2) 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 § 22-6-24. Such manner shall be accurately described on Form WR-38, "Affidavit of Plugging and Filling Well" (*see* subsection 13.10 below) as to time and manner of plugging and filling the well, and shall be approved by the Chief as a satisfactory landmark that may be used as such in the location of adjacent wells. Two (2) permanent reference points with courses and distances from the abandoned well shall be designated and prescribed on the plat required by subdivision 5.2.d above in the form prescribed by section 9 below, accompanying Form WW-4, "Notice of Intention to Plug and Abandon a Well," if any change in the plat is necessary, accompanying Form IV-38, "Affidavit of Plugging and Filling Well" (*see* subsection 13.10 below).

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 § 22-6 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.a. After the completion of the work authorized to be done by any permit required by W. Va. Code § 22-6-6, the permittee shall comply with filing requirements of W. Va. Code § 22-6-22 and section 12 of this rule.

5.7.b. In addition to the requirements of subdivision 5.7.a, following completion of plugging a well, the permittee shall also comply with the affidavit requirements of W. Va. Code § 22-6-23 and subsection 13.10 below.

§35-4-6. Plats, Notice to Coal Owner, Operator or Lessee.

6.1. Plats.

6.1.a. The plat submitted pursuant to W. Va. Code § 22-6-12 “before drilling for oil or gas, or before fracturing or stimulating a well” shall contain the information required by W. Va. Code § 22-6-12 and otherwise by this rule in the form and manner provided in section 9 below. 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.b. A plat is hereby required to accompany all applications for “fracturing any well” under W. Va. Code § 22-6-13 by means subsequent to and not an incident of previously permitted drilling, redrilling, deepening, pressuring or converting 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 § 22-6-12 and otherwise by this rule, and shall be in the form and manner provided in section 9 below; 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 § 22-6-14 and otherwise by this rule, and shall be in the form and manner provided in section 9.

6.1.c. The plat required by W. Va. Code § 22-6-14 “before drilling a well for the introduction of liquids for the purposes provided in W. Va. Code § 22-6-25 or for the introduction of liquids for the disposal of pollutants 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 § 22-6-25 and otherwise by this rule and shall be in the form and manner provided in section 9 below. Submission of a separate plat shall not be required before stimulating such a well, where stimulating is to be 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 § 22-6-6, including the associated plat and Construction and Reclamation Plan required by section 5 above, shall be used as the form of the Notice to Coal Operators, Owners or Lessees required by W. Va. Code §§ 22-6-12, 22-6-13 and 22-6-14 and shall be mailed by registered or certified mail to coal operators, owners or lessees.

§35-4-7. Operational Regulations on Liquid Injection and Waste Disposal Wells.

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

7.1.a. 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 the 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.b. 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 unless such disposal is approved by permit under applicable state and federal laws. When underground disposal of such water is required, such disposal well and related facilities will be permitted only upon application and approved 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.a. The Chief or his appointed representative shall be notified no less than twenty-four (24) hours prior to mechanical integrity testing to allow the Chief or his representative the opportunity to witness the tests. Copies of the results of all tests shall be submitted with Form WR-37 as provided in subdivision 7.3.b below.

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

7.3.b.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.b.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.b.3. A detailed identification of the materials being injected, including additives;

7.3.b.4. Specifications of cathodic protection and other corrosion control measures;

7.3.b.5. Filters, if any;

7.3.b.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.b.7. Certification that the mechanical integrity of the well has been tested and statement of the test method;

7.3.b.8. Facilities or systems to protect the integrity of the geological target formation or to prevent fracturing the confining strata; and

7.3.b.9. Application for variance, if any, as described in subsection 7.1 above.

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 subsections 7.1, 7.2, and 7.3 above, provided that 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 Chief and upon notification thereof to the well owner or operator, it is determined that said well is leaking liquids to others' wells or the surface.

7.5. Monitoring by the Operator - The well owner or well operator of a liquid injection or waste disposal well shall monitor daily and submit to the Office monthly the injection pressures and volumes on Form WR-40 "Report for Liquid Injection, Waste Disposal or Enhanced Recovery." The Chief 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 § 22-6-14 and subsections 7.1 through 7.5 of this rule 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.a. No liquid injection or waste disposal well shall be permitted to inject until a Pre-Operation Certificate (Form WR-37) is reviewed and approved by the Chief.

7.7.b. The mechanical integrity of a liquid injection or waste disposal well must be demonstrated to the approval of the Chief again within five (5) years from the last test date in order for injection to continue.

§35-4-8. 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 §§ 22-6-15, 22-6-16 or 22-6-17, shall be made on Form OB-13, "Objection Under W. Va. Code §§ 22-6-15, 22-6-16, or 22-6-17 to A Proposed Permitted Work."

8.2. Objection by the Office - Objections by the Office to any proposed well work under W. Va. Code §§ 22-6-15, 22-6-16, 22-6-17, 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.

8.3.a. If a coal operator, owner, or lessee files or the Office makes objection to proposed work under W. Va. Code § 22-6-16, the Office shall notify the applicant well operator by Form OB-14, "Notice to Well Operator of Objection under W. Va. Code §§ 22-6-15 or 22-6-16," attaching copies of all such objections.

8.3.b. If a coal operator, owner, or lessee files or the Office makes objection under W. Va. Code § 22-6-17, the Office shall notify the applicant well operator as provided by subsection 8.4 below.

8.4. Notice to Shallow Gas Well Review Board of Objections; Copies to Applicant - If a coal operator, owner or lessee files or the Office makes objections under W. Va. Code § 22-6-17, the Office 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 § 22-6-17 to a Proposed Drilling Site," attaching copies of all objections made pursuant to subsections 8.1 and 8.2 above and all other information required by W. Va. Code § 22-6-17. Copies of all such documents shall be sent to the applicant well operator as its notice of objection.

§35-4-9. Form and Contents of Plats.

9.1. Statutory Requirements for Plats - Any plats required to be furnished under W. Va. Code §§ 22-6-12

or 22-6-14 (*see* subsection 5.2 above), 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 §§ 22-6-12 or 22-6-14 or under subdivision 6.1.b. or subsection 13.1 of this rule shall conform to the following standards of accuracy and depiction:

9.2.a. Accuracy - An accuracy of one (1) part in two thousand five hundred (2,500) 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 (1) part in two hundred (200). The attained accuracy standard shall be stated on every plat.

9.2.b. Permanent Landmarks - At least two (2) 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.c. Physical Location of Well - Every well shall be drilled within ten (10) 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 (2) 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 three hundred (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.d. 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 Office. If landmarks used are not permanently established property corners, the landmark must be adequately referenced to such property corners to permit their future location.

9.2.e. 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.f. 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.g. North-South Line - A north and south line shall be given and point to the top of the plat.

9.2.h. Scale and Size of Plat - If practicable, all plats shall be drawn to a scale of one (1) inch equals two thousand (2,000) feet (1:24,000) or to even multiples thereof for each reduction of the plat photographically to a scale of one (1) inch equals two thousand (2,000) feet. The plat shall be eight and one-

half (8½) inches by fourteen (14) inches in size. Plats may be submitted electronically, using a format approved by the Chief.

9.2.i. Topographic Map Location of Well - The topographic map location of the well for which any permit application is made pursuant to W. Va. Code § 22-6-6 shall be shown on the plat by a "cross" with the measured distance in feet from the nearest two point five (2.5) minute latitude and longitude intersection using the North East (upper right) border of the plat on a seven point five (7.5) minute (1:24,000) topographic map. The plat shall also contain Universal Transverse Mercator (UTM) Zone 17 Northing and Easting coordinates in North American Datum (NAD) 83(CORS96). Each plat shall indicate the quadrangle name of the topographic map used.

9.2.j. 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 one thousand two hundred (1,200) feet of the well that is the subject of the new application and, in the case of an application for a shallow gas well with a depth of three thousand (3,000) feet or more and that penetrates a coal seam, the scope of the plat shall be sufficient to show all wells within two thousand four hundred (2,400) feet of the well that 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 § 22-6-14, underground storage or storage observation) and status (active, abandoned or drilling) of each such well to be determined by use of:

9.2.j.1. API permit number (excluding state and county) for each well having such a permit number;

9.2.j.2. In parentheses, and following the API number if such is listed, the type and status numbers provided below; and

9.2.j.3. The symbols provided in Appendix A of this rule.

9.2.k. The kind and status numbers to be used shall be as follows:

9.2.k.1. Oil Wells:

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

9.2.k.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.k.3. Shallow gas wells:

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

32 – Three thousand (3,000) feet or more, storage observation, abandoned

33 – Three thousand (3,000) feet or more, storage observation, drilling

9.2.k.4. Liquid injection wells:

34 - Active

35 - Abandoned

36 - Drilling or being converted

9.2.k.5. Waste disposal wells:

37 - Active

38 - Abandoned

39 - Drilling or being converted

9.2.k.6. Gas injection wells:

40 - Active

41 - Abandoned

42 - Drilling or being converted

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

9.2.l.1. Water wells within two hundred (200) feet of the well for which any permit under W. Va. Code § 22-6-6 is being sought, except for liquid or waste disposal wells, in which case water wells within one thousand (1,000) feet of the well shall be shown;

9.2.l.2. Dwellings within two hundred (200) feet of the well for which any such permit is being sought;

9.2.l.3. Streams;

9.2.l.4. Roads and highways; and

9.2.l.5. Railroads with indication of the owners' names.

9.2.m. 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 professional surveyor licensed by law to practice in the State of West Virginia. The certificate shall be signed and certified by the registered professional engineer or professional 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 rules issued and prescribed by the Department of Environmental Protection.”

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 Office for use with the permit issued for the most recent previous application, updated as necessary to reflect new data or additional data not required by statute or this rule; Provided, that a new certification shall be necessary in the form required by subsection 9.3 above. However, a new certification is not required for a plugging permit.

9.5. Permanent Character of Plats - Every plat submitted under section 9 of this rule shall be of permanent character, that is, on linen or plastic or other material of comparable quality and with indicia or other ink resulting in a depiction not subject to substantial degradation through time from exposure to ordinary conditions of temperature, humidity, and light. Plats may be submitted electronically, using a format approved by the Chief.

§35-4-10. Separate Bonds; Blanket Bonds; Financial Responsibility; Registration; Designation of Agent; Transfer of Title and Operator Status; Transfer Procedures; Periodical Circular; Hearings; Ineffective Bonds; and Financial Responsibility from Competing Interests.

10.1. Separate Bonds.

10.1.a. Each permit application filed after the effective date of this rule shall be accompanied by a separate bond with corporate surety or cash or other collateral security in compliance with W. Va. Code § 22-6-26 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 § 22-6-26(c); or (b) the permit application is for a permit to plug a well that is already subject to corporate surety, cash or collateral security that satisfied applicable requirements at the time such corporate surety, cash or collateral security was furnished.

10.1.b. The demonstration of financial responsibility for individual wells after the effective date of this rule shall be accompanied by a separate bond with corporate surety or cash or other collateral security in the amount of five thousand dollars (\$5000) in compliance with W. Va. Code §§ 22-6-26, 22-10-4 and 22-10-5, except where a blanket bond is being furnished pursuant to W. Va. Code § 22-6-26(c), and shall be submitted with Form OP-7, “Bond for Single Oil and Gas Wells, Single Liquid Injection Wells, or Single Waste Disposal Wells.” Any corporate surety bond, cash or collateral security furnished prior to the effective date of this rule shall remain in effect for the Office until such time as the well operator is issued any new determination of financial responsibility as may be required by this rule.

10.1.c. A well currently subject to a bond of less than five thousand dollars (\$5,000) or for which no bond exists for the determination of financial responsibility shall be transferred to an existing or new five thousand dollar (\$5,000) bond in compliance with W. Va. Code § 22-6-26 by filing form OP-77.

10.2. Blanket Bonds.

10.2.a. Any blanket bond furnished after the effective date of this rule 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 Office 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 statute; Provided, that if a blanket bond furnished prior to July 11, 1985 complies with the requirements of the statute, 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 that is already subject to corporate surety, cash or collateral security that 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.

10.2.b. The demonstration of financial responsibility for multiple wells after the effective date of this rule shall be accompanied by corporate surety or cash or other collateral security in compliance with W. Va. Code §§ 22-6-26, 22-10-4 and 22-10-5 and shall be submitted with Form OP-8, "Blanket Bond for Oil and Gas Wells, Liquid Injection Wells, and Waste Disposal Wells." Any corporate surety bond, cash or collateral security furnished prior to the effective date of this rule shall remain in effect for the Office until such time as the well operator is issued any new determination of financial responsibility as may be required by this rule.

10.2.c. Wells currently subject to a blanket bond of less than fifty thousand dollars (\$50,000), or for which no bond exists, or for which a new blanket bond is desired for the determination of financial responsibility shall be transferred to an existing or new fifty thousand dollar (\$50,000) blanket bond in compliance with W. Va. Code § 22-6-26 by filing form OP-77.

10.3. Registration; Designated Agent; Transfer of Title and Operator Status.

10.3.a. All persons owning or operating or proposing to own or operate any well in West Virginia shall register with the Chief. 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 or operator upon whom process, notices, orders, and other communications issued pursuant to W. Va. Code § 22 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 Office. Every well owner or operator who has designated such agent or attorney in fact shall, within five (5) days after termination of such designation, notify the Office 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 § 22-6-6 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 papers.

10.3.a.1. When title to a well or the right to operate a well is transferred from one (1) well operator to another, the Chief shall be notified in writing within five (5) days by the transferor well operator or, if he no longer exists, by one or more of the owners of the well, the name and address of the transferee well operator. A copy of such notification shall be delivered to the transferee well operator. Failure to notify the Chief of such transfer shall be a violation of this rule by said transferor and shall be punishable under W. Va. Code § 22-6-34, and in addition, all bonds of such transferor under W. Va. Code § 22-6 shall be forfeited.

10.3.a.2. The transferee well operator shall forthwith register with the Office if he has not previously registered. In any event, said transferee shall forthwith notify the Office of his designated agent or attorney in fact pursuant to subsection 10.3, unless a designation has already been made and approved. The

transferee well operator shall file with the Office on form OP-77 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 or operators and the transferee well operators, a copy of the instrument of assignment or transfer, or a certification of such assignment or transfer acceptable to the Chief, and the applicable bond, cash, or collateral security described in W. Va. Code § 22-6-26.

10.3.a.3. No assignment or transfer by the transferor owner shall relieve the transferor well owner of any obligation and liabilities pursuant to this rule or W. Va. Code § 22, unless and until the Office of Oil and Gas accepts and then notifies the transferee and transferor as outlined in subsection 10.4 below that they have complied with the provision of section 10.

10.4. Filing Requirements and Procedure for the Transfer of Operator and Declaration of Operator Status.

10.4.a. General requirements.

10.4.a.1. No transfer of operator or declaration of operator status under this rule will be approved until such time as a copy of Form OP-1, "Operator Registration Form and Designation Form," has been filed.

10.4.a.2. All forms promulgated by the Office of Oil and Gas and required by this rule may be replaced by copies of any applicable successor forms promulgated by the Office of Oil and Gas.

10.4.a.3. A separate application must be submitted for each well for which a transfer is desired.

10.4.a.4. Each application must be accompanied by a filing fee of fifty dollars (\$50). Where an operator is submitting several applications at one time, a single check may be submitted for a sum equal to the number of applications multiplied by fifty dollars (\$50). Such fee should be paid by the transferor, but in no case will any well be transferred without the fee.

10.4.a.5. Each application shall be on Form OP-77.

10.5 Transfer Procedures.

10.5.a. Initial Action by the Office of Oil and Gas - Upon receipt of an application to transfer a well from one operator to another or to transfer a well by a single operator to another bond, the Office of Oil and Gas will conduct a review of the submitted data along with other information available to it within sixty (60) days.

10.5.b. Periodical circular.

10.5.b.1. The Office of Oil and Gas will publish from time to time, but not less often than monthly, a circular indicating the status of various applications filed under this rule.

10.5.b.2. The circular will identify each well by applicant and by a file number which will indicate:

10.5.b.2.A. The date received by the Office of Oil and Gas;

10.5.b.2.B. The API county and permit number;

10.5.b.2.C. The name of the transferee and transferor; and

10.5.b.3.2.D. The date on which the determination order was final.

10.5.c. Notice of Hearing - Notice of all filings for applications for transfer and designation of operator status under this rule and 35 CSR 5 §3.1 ("Procedure for Designation of Bona Fide Future Use") will be published by the Office of Oil and Gas, indicating that interested persons may intervene in the application by filing written comments with the Office of Oil and Gas within fifteen (15) days from the date that the circular is published. If objections are made by any interested person or by the Office of Oil and Gas or if the Chief determines that other information may be necessary in order to make a determination, a public hearing may be held. On the hearing date, the applicant and all persons who have timely filed objections on or before the date of the hearing will be given an opportunity to present additional evidence.

10.5.d. Determination - After a hearing has been held, a determination as to whether the well qualifies to be transferred to the transferee will be made by the Chief. If no objection is made within the time prescribed by subdivision 10.5.c above, the Chief will make a determination as to whether the well qualifies to be transferred. Notice will be given of the Chief's approval of the transfer by publication in the circular, and the Chief 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 §§ 22-6-12, 22-6-14 or 22-6-26.

10.6. If for any reason the bond or other proof of financial responsibility on a well is rendered invalid or ineffective, the operator shall have sixty (60) days in which to replace such bond or other proof of financial responsibility. In the event such bond or other proof of financial responsibility is not replaced, then the Chief shall order the well to be shut in and may order the well to be plugged.

10.7. Nothing in this section shall prohibit the Chief from accepting and holding bonds or other forms of financial responsibility from more than one competing interest.

§35-4-11. Operational Criteria.

11.1. Casing Not Exclusive - In addition to the casing required by W. Va. Code §§ 22-6-18, 22-6-19, 22-6-20, and 22-6-21, 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.a. The coal protection casing required by W. Va. Code §§ 22-6-18 through 22-6-20 to be installed through the workable coal seam or seams shall be in addition to the production casing.

11.2.b. The coal protection casing required by W. Va. Code § 22-6-18 shall have cement circulated in the annular space outside said casing. The volume of the cement needed shall be calculated by using approved 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 § 22-6-21 shall extend at least thirty (30) feet below the deepest fresh water horizon (that being the deepest horizon that 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 the 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, the district inspector shall be notified. If the top of cement cannot be located using sound engineering practices approved by the Chief or his authorized representative, then an electric log or similar technology approved by the Chief shall be used. Sound engineering practice approved by the Chief or his authorized representative shall be used to fill the annular space back to the surface. Requests to approve methods other than pre-approved practices shall be acted upon by the Chief or his authorized representative within twelve (12) hours of actual notice to the Chief or his authorized representative, otherwise the request will be deemed approved. If the coal protection casing is cemented to the surface in accordance with the prescribed procedure, this may also be considered a fresh water protective casing. In no case shall the fresh water casing penetrate salt water or gas bearing strata or extend below sea level. There shall be no oil and gas production through the fresh water casing for new wells or the redrilling of existing wells permitted on or after August 1, 1993. Variances from the requirements of this section shall be granted on a site specific or area basis in accordance with section 18 of this rule.

11.4. Cement Strength - Cement placed in the annular space around the casing shall be allowed to set to a minimum compressive strength of five hundred (500) pounds per square inch, using approved engineering data for the type of cement used. The waiting time for cement used in compliance with subsection 11.5 of this rule shall be eight (8) hours. The waiting time on any other cement shall be in no case less than eight (8) hours.

11.5. Cement Type - Cement used to fill the annular space around the casing required in subsections 11.2 and 11.3 of this rule shall be American Petroleum Institute Class A Ordinary Portland cement with no greater than three percent (3%) calcium chloride and no other additives; Provided, that if the well operator furnishes satisfactory proof that different cement types are adequate, the Chief may approve use of such different cement types.

11.6. Annual Inspection - The operator shall conduct an inspection at the surface of each unplugged well at which drilling has been completed for more than five (5) years. Such an inspection shall be conducted no less frequently than once each calendar year in a method approved by the Chief. Certification of the performance of such inspection, in a form approved by the Chief, shall be filed with the Office of Oil and Gas in conjunction with the operator's annual report as required by subsection 15.1 below. Should the operator detect evidence of any significant leakage or other indications of casing integrity failure, the operator shall give notice to the Office of Oil and Gas and take such measures as may be appropriate to eliminate or mitigate the leakage.

11.7. Drilling Practices Prior to Freshwater Casing - Prior to the cementing of the freshwater casing as required by subsection 11.3 above, drilling practices and procedures, such as air or water pressure and soaping, shall be conducted using operating practices so as to minimize damage or disturbance or the possibility of unnecessary damages or disturbance to the uncased strata/formations and groundwater contained in any of those formations. The requirements of this section shall not prevent the use of drilling practices and procedures reasonably necessary to the successful drilling of the well in a safe manner. The requirements of this section shall not be construed to prohibit practices specifically allowed by statute or other regulations.

11.8. Blowout Prevention Training - The well operator shall assure that, at all times during the operation of the drilling rig, a person shall be present who has successfully completed a training course on blowout prevention approved by the Chief.

§35-4-12. 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 subsection 5.2 of this rule. 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, including documentation by the contractor or person performing the cementing services of the time of completion of cementing and the volume of cement used for the cementing of the fresh water casing. 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 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. The records made and preserved at the well location and the recordings made on Form WR-35 shall include, but not be limited to, indications of caverns, open mines, or other voids, whether the fresh water casing cement did circulate to the surface, and the efforts made to fill the annular space and the results. 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.a. Within ninety (90) days after the completion of permitted well work, two (2) 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 § 22-6-22, Form WR-36, "Well Operator's Report of Initial Gas-Oil Ratio Test," (except that, where the well has not been connected within such ninety (90) day period to pipelines or production tanks, Form WR-36 shall be filed no more than fifteen (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 Chief. 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 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 information or corrected information discovered, by electric logs or other means, after completion of the permitted work.

12.2.b. Deep Well Confidential Information; Filing of Well Logs:

12.2.b.1. Within ninety (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 analyses, porosity, permeability or fluid saturation measurements, core analyses, and lithologic logs or sample descriptions 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.b.2. All information furnished with respect to a deep well marked "CONFIDENTIAL" shall be kept confidential for one (1) year following the date the information is required to be filed hereunder, unless the well operator gives the Chief written permission to release such information at an earlier date.

12.2.b.3. For good cause shown by the operator, the West Virginia Oil and Gas Conservation Commission may extend the period of confidentiality for one (1) year. The total period of confidentiality shall not exceed three (3) years.

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

§35-4-13. Plugging, Abandonment and Reclamation.

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

13.1.a. The Notice of Intention to Plug and Abandon a Well required by W. Va. Code § 22-6-23 shall conform to subdivision 5.2.d above.

13.1.b. The well operator shall also submit copies of all logs in its possession upon specific request by the Chief, pursuant to W. Va. Code § 22-6-6(c)(10)(ii).

13.2. In all cases, completed Forms WW-4(A) and WW-4(B) shall be filed with the Office and delivered to the coal operator, owner or lessee in the manner and within the time limits set out in W. Va. Code § 22-6-23(a), (b), and (c) for the "notices" referred to therein.

13.3. The owner or operator of every well presumed to have been abandoned under the provisions of W. Va. Code § 22-6-19 shall file Form WW-4 within sixty (60) days after such abandonment, unless the Office waives this requirement for good cause shown.

13.4. Work Order; Manner and Method of Plugging.

13.4.a. 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:

13.4.a.1. Location (by depth);

13.4.a.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;

13.4.a.3. Plans for mudding, cementing, and filling;

13.4.a.4. Plans for testing, and for shooting and removing casing; and

13.4.a.5. All other pertinent information regarding said plugging and filling, all of which shall be in compliance with W. Va. Code § 22-6-24. The information shall be submitted on Form WW-4(B), "Application to Plug and Abandon a Well."

13.4.b. Any well operator proposing to plug or to clean out and replug a well in the manner specified by W. Va. Code § 22-6-24(c) shall furnish the alternate cost estimates for performing such well work in the manner specified by W. Va. Code § 22-6-24(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 § 22-6-24(d)."

13.5. Length of Plug - All cement plugs, other than those across coal seams, shall be at least one hundred (100) feet in length unless a variance from such a requirement is granted pursuant to section 18 below.

13.6. Retrieving Casing and Completing a Seal - The operator shall make reasonable efforts to cut and pull all recoverable casing (as determined by methods approved by the Chief or his authorized representative). Equipment used to pull recoverable casing shall be rated and rigged at or above one hundred fifty percent (150%) of the estimated weight of the heaviest string of recoverable casing, unless otherwise approved by the Chief or his authorized representative. Sufficient instrumentation shall be utilized to accurately indicate the pulling force applied. When casing cannot be pulled, the operator shall make reasonable attempts to perforate the pipe and squeeze cement behind the pipe in the vicinity of the freshwater zones to prevent the contamination of the fresh water zone.

13.7. "Verbal Permission" to Plug.

13.7.a. Verbal permission may be given pursuant to W. Va. Code § 22-6-6(c)(10) in the event the well to be plugged and abandoned is one on which drilling or working operations have been continuously progressing pursuant to authorization granted by the Office. Any verbal permission shall be given by the Chief, the supervising inspector, or any inspector who is available to supervise the plugging work. Unless such verbal approval is given by the Chief, the well operator shall notify the Office by telephone of such verbal approval no later than the next regular working day.

13.7.b. Unless the well operator proposes to plug the well in a manner allowed by W. Va. Code § 22-6-24(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 § 22-6-36, so as to provide the coal owner, operator or lessee the best feasible opportunity to make a plugging request under subdivision 13.4.b of this rule.

13.8. Objections to Proposed Plugging - Objections to the proposed plugging of a well, whether by the Office or by any affected person, shall not be made except for violation or impending violation of the provisions of W. Va. Code §§ 22-6-23, 22-6-24 or any provision of this rule. The Chief shall promptly rule on such objections at a hearing to be held after providing no less than five (5) days notice to the applicant and objectors.

13.9. Plugging Method Request by Coal Operator or Coal Seam Owner:

13.9.a. The request by a coal operator or coal seam owner made pursuant to W. Va. Code § 22-6-24(d) for a well to be plugged in any manner allowed by W. Va. Code § 22-6-24(d)(3), rather than by the method provided in W. Va. Code § 22-6-24(c), shall be made on Form OB-16, "Request by Coal Operator, Owner, or Lessee for Plugging Under W. Va. Code § 22-6-24(d)."

13.9.b. The well operator or owner in his sole discretion may waive the provision in W. Va. Code § 22-6-24(d) that such request "must be filed in writing with the Office 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.

13.9.c. The Office shall make findings and issue an order in accordance with W. Va. Code § 22-6-24(d)(2) by endorsement on or attachment to Form WW-4.

13.10. Statutory Affidavit - The affidavit authorized by W. Va. Code § 22-6-23 and subsection 12.2 of this rule shall be made on Form WR-38, "Affidavit and Filling Well." The affidavit shall be executed by at least

two (2) parties doing the actual work, whether they are employees of a service company, a plugging contractor, or the well owner operator.

§35-4-14. Plugging Methods.

14.1. Materials Used in Plugging - The non-porous materials and cements mentioned in W. Va. Code § 22-6-24 must be specified in the work order portion of Form WW-4(B), "Application to Plug and Abandon a Well." All cement, except where expanding cement is required, used in conjunction with plugging shall be American Petroleum Institute Class A Ordinary Portland cement with no greater than three percent (3%) calcium chloride and no other additives. All non-porous materials used in conjunction with plugging shall be at least six percent (6%) bentonite gel. If the operator furnishes satisfactory proof that different cement or non-porous material types are adequate, the Chief or his authorized representative may approve use of such different cement or non-porous materials. Materials and cements must be of a kind and quality accepted by the oil and gas industry, approved by the Office as suitable for the intended purpose, and which otherwise comply with all provisions of law and accepted standards. The Chief may approve use of non-standard material or cement.

14.2. Cleaning Out and Replugging Application; Objections; Order.

14.2.a. Application pursuant to W. Va. Code § 22-6-24(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 to accompany Form WW-4 by subsection 13.1 above.

14.2.b. Objections to a Form WW-4 application to clean out and replug a well, whether by the Office or by any affected person, shall not be made except for violation or impending violation of the provisions of W. Va. Code §§ 22-6-23, 22-6-24 or section 13 of this rule. If such an objection is filed or made, a hearing date shall be set and notice given by the Office by endorsement on the objection and mailed in accordance with W. Va. Code § 22-6-24(e). The endorsement shall indicate the date, time and location of the hearing, identifying the well by reference to the API number.

14.2.c. The Office'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 § 22-6-24(e).

§35-4-15. Reports.

15.1. Annual Reports of Oil and Gas Production.

15.1.a. An annual report of oil and gas production for each well shall be filed with the Chief on or before the succeeding March 31. This report shall be on Form WR-39, "Report of Annual Production," or in such form as the Chief 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 the well operator. Oil shall be reported in barrels, and gas shall be reported in thousand cubic feet.

15.1.b. 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 acceptable "pipeline quality."

15.1.c. Measurement of Gas.

15.1.c.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.c.2. If common or master meter measurement is in use, the wells subject to common measurement shall be identified by API number, and production estimated for each such well shall be reported.

15.1.c.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, the wells so measured shall be identified by API number, and the production estimate for each such well shall be reported if such estimates are made.

15.1.d. Failure to submit an annual report of oil or gas as required by this rule or to provide proof of an existing use or a bona-fide future use under 35 CSR 5 shall constitute a rebuttable presumption that the well is abandoned by the operator.

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 Chief.

§35-4-16. Reclamation.

16.1. Reclamation Under the Construction and Reclamation Plan.

16.1.a. All proposed reclamation methods 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 § 22-6-6, except a permit to plug a well. Such proposed reclamation methods shall be approved by the Chief or his designate prior to the issuance of the permit, and all reclamation shall be done under the supervision of the Chief. With the consent of this Chief or his designee, the reclamation may be altered from that set out in said Form WW-9, if found necessary 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 not 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. Wastewater Pits and Freshwater Impoundments - All field constructed wastewater pits and freshwater impoundments shall meet the following minimum requirements:

16.4.a. All pits and impoundments shall be constructed and maintained so as to prevent seepage, leakage or overflows and to maintain their integrity.

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

16.4.c. All pits and impoundments shall have adequate freeboard to prevent overflow, and in no case shall the freeboard be less than approximately two (2) feet. When an operator is unable to maintain adequate freeboard to prevent overflow, the operator shall notify the district inspector and an additional pit (or alternative overflow facility) shall be constructed under the supervision of the Chief. The additional pit or alternative overflow facility shall also meet the requirements specified in this subsection (16.4).

16.4.d. All pits and impoundments shall have an impermeable synthetic liner to prevent seepage or leakage, except those pits and impoundments deemed to be suitable to prevent seepage or leakage based on soil analyses from the operator and standards developed and certified by a registered professional engineer and approved by the Office. Before deeming pits suitable to prevent seepage or leakage without a synthetic liner, the Chief shall notify the surface owner that the surface owner is entitled to receive notice of the application for the well work permit and that the operator has requested that the pit be deemed suitable to prevent seepage or leakage without a synthetic liner. If the surface owner objects, the Chief shall hold a hearing pursuant to article five, chapter twenty-nine-A of the Code of West Virginia before determining that the pit is suitable to prevent seepage or leakage. All such liners shall be installed in such a manner as to protect the structural integrity of both pit or impoundment and liner.

16.4.e. Dikes and embankments associated with pits and impoundments shall be constructed of compacted material and maintained with a slope that will preserve the structural integrity of such dike or embankment.

16.4.f. All dikes and embankments 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 the dike or embankment.

16.4.g. Reclamation of the pits and impoundments shall not cause an overflow and/or discharge of materials to waters of the state.

16.4.h. All 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 any use available prior to the well activity after the expiration of the six (6) month or extended period for reclamation prescribed by W. Va. Code § 22-6-30. The reclamation period for pits and impoundments permitted with multiple wells shall be calculated from the date the last well was drilled.

16.5. Surface and Underground Water Pollution.

16.5.a. 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.b. 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 methods 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~~ to the surface of the ground. In the case of foaming, it is recognized that a certain amount of salt water mixed with the 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 twenty-four (24) hours before actual permitted well work is commenced.

16.7. Requirements for Production and Gathering Pipelines.

16.7.a. 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 the United States Department of Transportation minimum safety standards applicable to pipelines.

16.7.b. The Chief reserves the right to direct the burial of any line installed under this rule to protect the public safety, by order issued after notice and hearing under the Office's rules.

16.7.c. Subject to the reservation in subdivision 16.7.b. above, production and gathering lines subject to this rule shall conform with the following:

16.7.c.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.c.1.A. Where the line crosses agricultural land as defined in W. Va. Code § 19-19-2;

16.7.c.1.B. Where an unburied line would prohibit use of a pre-existing private roadway or other means of access to a part of or all of surface land;

16.7.c.1.C. Where the line cannot more practically and reasonably be securely suspended to cross stream beds;

16.7.c.1.D. 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.c.1.E. Where the Chief decides prior to installation that burial would be practical and reasonable.

16.7.c.2. All buried lines shall be installed with a minimum of eighteen (18) inches of cover, except where solid rock is encountered in which case the minimum cover shall be six (6) inches;

16.7.c.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.c.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.d. Notwithstanding subdivision 16.7.c of this rule, the surface owner(s) of record of any tract subject to the provisions of W. Va. Code § 22-6-30(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 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 proposed to install and operate the line, the prescription may not be revoked by any subsequent surface owner(s) of record.

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

16.8 Operating in Designated Mining Areas

16.8.a. In the event the coal permit holder, by certified mail, return receipt requested, provides a gas operator with a Notice of Designated Mining Area, the operator shall disclose by markers or drawing on one or more maps all natural gas pipelines as provided in subdivision 16.8.b below. For such notices received within one (1) year from the effective date of this rule, such disclosure shall occur within six (6) months of receipt of the Notice of Designated Mining Area. For such notices received after the date that is one (1) year from the effective date of this rule, the disclosure shall occur within ninety (90) days of the date of the receipt of such notice, but the Chief may extend this time period by not more than ninety (90) days for good cause shown.

16.8.b. Pipelines in designated mining areas

16.8.b.1. All buried pipelines within a designated mining area shall be physically marked by the installation by or for the gas operator of above ground pipeline markers to be placed near the pipeline approximately along the line of sight, but not more than five hundred feet (500') apart. The pipeline markers shall be at least three feet (3') in height and include the word “Warning,” “Caution,” or “Danger” followed by the words “Gas Pipeline,” all of which must be in letters at least one inch (25 millimeters) high with one-quarter inch (6.4 millimeters) stroke, and show the name of the operator and the ten digit telephone number (including area code) where the operator can be reached. Markers shall be within twenty feet (20') of the pipeline where practicable; *Provided*, That if the pipeline has been buried or moved by a third party, the pipeline shall be marked on a best-efforts basis and, in any event, the gas operator shall not be required to dig or excavate to uncover the line. Markers in place as of January 1, 2009 that substantially conform to this Rule need not be replaced. The gas operator does not have a duty to replace markers unless those markers are damaged, disturbed or destroyed by the gas operator or someone acting on his behalf.

16.8.b.2. Unburied lines within a designated mining area will be marked as provided above or identified by providing the holder of the coal permit with computer-assisted or other drawings that show the approximate location of the unburied natural gas pipelines operated by that operator, or a topographical map on a scale no larger than one inch equals two thousand feet (1"=2,000'), showing the approximate location of the operator's natural gas pipelines. The pipeline locations shown on the map shall be within three hundred feet (300') of the actual location of the line unless it has been buried or moved by a third party, in which event the map or drawings shall identify the line on a best-efforts basis.

16.8.b.3. Pipeline markers should be placed where reasonably possible within “line of sight,” but in such places where that may not be practical, other means may be used to establish markings along the line of sight, provided that the coal operator is informed of the alternative method of marking. Additionally, upon receipt of a Notice of Designated Mining Area, the gas operator shall provide the coal operator that provided the Notice of Designated Mining Area with a ten digit telephone number where the gas operator may be contacted.

16.8.b.4. The provisions of this subdivision may be superseded by a written agreement between

the gas operator and the coal operator, which allows for notice of the location of pipelines by providing drawings, computer-assisted or otherwise, a topographical map of a scale no less detailed than one inch equaling two thousand feet (1" = 2,000') or by providing the GPS coordinates of such pipeline: Provided, That a copy of said agreement has been supplied to the Director of Miners' Health, Safety, and Training and to the Chief.

16.8.c. Gas operators who have received a Notice of Designated Mining Area shall have a continuing obligation to comply with the disclosure requirements of this section with respect to: (i) all new pipelines installed by the operator subsequent to the operator's initial disclosure; and (ii) all existing pipelines relocated by the gas operator elsewhere within a designated mining area subsequent to the operator's initial disclosure.

16.8.d. Upon the operator providing the required maps, coordinates or drawings or upon the operator setting conforming pipeline markers, the operator shall certify to the Chief by notarized affidavit, sworn or attested under penalty of law, that, to the best of the operator's knowledge and belief, or that of the operator's authorized agent or representative: (i) the operator is aware of and understands its obligations pursuant to subdivision 16.8.a of this Rule; and (ii) the operator has complied fully therewith. The operator shall deliver a copy of the certification to the coal permit holder by certified mail, return receipt requested, to the address provided in the Notice of Designated Mining Area.

16.8.e. So long as mining activities are ongoing, and excepting a bona fide emergency, a gas operator shall attempt to contact the coal permit holder whenever the operator enters or leaves the designated mining area. An attempt shall be deemed sufficient if the operator checks in at any staffed guard gate or entrance, or if the operator telephones the contact number listed in the Notice of Designated Mining Area in a good faith effort to communicate with the coal permit holder.

16.8.f. If any provision of this section is deemed to conflict with the pipeline regulations of the United States Department of Transportation (DOT), then the DOT regulations shall prevail, be enforced, and govern the conduct otherwise subject to this section. Nothing in this section is intended to contravene any right or obligation imposed by contract, statute or the common law.

§35-4-17. 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 waters 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 volume 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, the casing and blow-out equipment (both blind and pipe rams or their equivalent) shall be installed and tested by operation and pressure to a minimum pressure that 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.

§35-4-18. Variances.

Upon request, or upon his own initiative, the Chief 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 Code and exhibit sound engineering practices. Prior to taking final action to grant or deny such a variance, the Chief 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.

§35-4-19. Water Supply Testing.

19.1. Testing Obligations and Rights.

19.1.a. At the request of the owners of record of the surface tract as defined in W. Va. Code § 22-6-9 or an occupant of land within one thousand (1,000) feet of the proposed well, the operator shall sample and analyze, in accordance with this section, water from any wells or springs located within one thousand (1,000) feet of the proposed well that is actually utilized by such owner or occupant for human consumption, domestic animals, or other general use.

19.1.b. If no request is made of the operator pursuant to the previous subsection, the operator shall sample and analyze, in accordance with this section, water from any one known and existing well or spring within one thousand (1,000) feet of the proposed well. If more than one such well or spring exists, the operator shall select for sampling and analysis the one well or spring that, in the operator's judgment, has the highest potential for being influenced by the operator's well work.

19.1.c. If for any reason the operator is unable to sample and to analyze water from any such water wells or springs within one thousand (1,000) feet of the operator's proposed well, the Chief may require the operator to sample and to analyze, in accordance with this section, water from one existing water well or spring located between one thousand (1,000) and two thousand (2,000) feet from the operator's proposed well.

19.1.d. At an operator's discretion, any or all water wells or springs within one thousand (1,000) feet of the operator's proposed well may be sampled and analyzed in accordance with this section.

19.2 Notice.

19.2.a. Surface Owner - The operator shall give notice to the owner of record of the surface tract (as defined in W. Va. Code § 22-6-9) of the right of the user who is either an owner or occupant to request the operator to sample and analyze a well or spring in accordance with subdivision 19.1.a of this rule. The operator shall be deemed to have satisfied this requirement if notice is provided by the same methods utilized in conjunction with the permit application.

19.2.b. Generally - The operator shall make a reasonable attempt to give additional notice of the right to request the operator to sample and analyze a well or spring in accordance with subdivision 19.1.a above. The operator will be deemed to have satisfied this requirement if notice is provided by any of the following methods:

19.2.b.1. By personal service or by posting notice at the entrance to any dwellings located within one thousand (1,000) feet and at any other locations within one thousand (1,000) feet of the operator's proposed well where the use of such water wells and springs is conspicuous;

19.2.b.2. Mailing notice to dwellings located within one thousand (1,000) feet of the operator's proposed well and posting at any other locations within one thousand (1,000) feet of the operator's proposed well where the use of such water wells and springs is conspicuous; or

19.2.b.3. By any other means reasonably calculated by the Chief to provide adequate notice to the occupant/user.

19.2.c. Form - The notice provided by the operator in accordance with this section shall be in a form approved by the Chief, which, at a minimum, shall contain a statement of the user's right to request sampling and analysis, advise the user of his or her independent right to sample and analyze any water supply at the expense of the user, advise the user whether or not the operator will utilize an independent laboratory to analyze any sample, and advise the user of the availability through the Chief of a list of laboratories.

19.2.d. Timing - For all wells, such notice shall be given at least forty-eight (48) hours prior to the commencement of well drilling. For well drilling permitted after August 1, 1993, the operator shall provide such notice prior to the time of the filing of any permit application with the Chief.

19.2.e. Filing with the Chief - At the time of the filing with the Chief of the permit application for well drilling, the operator shall file with the Chief a statement describing whether any such users were identified and the manner in which any such users were provided with notice.

19.3. Sampling and Analysis.

19.3.a. Approved Methods - The operator shall collect and analyze samples in accordance with methods approved by the Chief or as set forth at 40 CFR Part 136.

19.3.b. Parameters - The operator shall analyze samples for the following parameters:

19.3.b.1. pH;

19.3.b.2. Iron;

19.3.b.3. Total dissolved solids;

19.3.b.4. Chloride;

19.3.b.5. Detergents (MBAS); and

19.3.b.6. Any others parameters as determined by the operator.

19.3.c. Laboratories - The laboratory utilized by the operator shall be approved by the Chief as being capable of performing sample analyses in accordance with this section.

19.3.d. Distribution of Results - The operator shall, no later than thirty (30) days after receipt of such sample analysis, provide the results of such sample analysis in writing to the Chief and to any of the users who may have requested such analysis in accordance with this section.

19.3.e. Certification of Results - The submission of analytical results on behalf of the operator pursuant to subdivision 19.3.d. shall be made by a responsible operator representative or contractor knowledgeable of and responsible for the sampling and analysis of such samples, who shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

19.4. Operators Right of Entry.

19.4.a. After notice as required by this section, the operator (or any other contractor or laboratory directed by the operator to collect samples of water for analysis) may enter onto land upon which a water well or spring is located to conduct sampling as authorized by subsection 19.1 above. This right of entry may be exercised for this purpose without the permission of the landowner or water or spring users.

19.4.b. If any owner of the land or user of the water well or spring protests or acts to block the right of entry, then the right of entry may be enforced by a court with jurisdiction to enter an injunction regarding the land upon which the source or supply is located. However, if any person acts to block the right of entry provided herein, the operator is not required to enforce this right of entry and shall not be liable for any penalty or loss of rights, privileges, or permits based on the failure to exercise the right of entry and obtain the water sample otherwise required by this section.

19.4.c. If the operator or contractor does not enter onto land and obtain a water test because of a protest or action to block the operator's or contractor's entry, the protest or action to block entry shall be admissible as evidence in an action between the operator and any landowner or water well or spring user in which the results of the test would have been relevant.

19.4.d. The operator is liable for any reasonable actual damages done other than normal wear and tear of the property while gathering the sample required by this section. This provision does not limit other provisions of the law.

§35-4-20. Groundwater Remediation.

20.1. Where the facilities or activities of an operator cause or contribute to the concentration of a certain constituent in groundwater that exceeds standards of purity and quality for groundwater promulgated pursuant to W. Va. Code § 22-12-5, every reasonable effort shall be made by the operator to identify, remove, or mitigate the source of such contamination. Within thirty (30) days following written request by the Chief, the operator shall submit to the Chief a groundwater remediation plan to strive, where practical, to reduce the level of contamination over time to support drinking water use. Such a plan shall include such groundwater monitoring as may be necessary to demonstrate the effectiveness of the plan.

§35-4-21. Construction of Pits and Impoundments with Capacity of Greater Than Five Thousand (5,000) Barrels.

21.1. All pits and impoundments with capacity of greater than five thousand (5,000) barrels used in association with an oil and gas operation, shall be constructed only in locations appropriate for the storage of water, including wastewater, and shall be designed, constructed, located, maintained, and used in accordance with this rule and in such a manner as to minimize adverse environmental effects and to assure safety to the public. Notice of construction of all pits and impoundments shall be provided to the Office prior to construction. Such notice shall identify the location and dimensions of the pit or impoundment. The Office shall have the authority to inspect these sites and enforce this rule.

21.2. Design and Construction Requirements. – All such pits and impoundments shall:

21.2.a. Be constructed in accordance with plans designed and certified by a West Virginia registered professional engineer;

21.2.b. Provide adequate freeboard of no less than approximately two (2) feet to resist overtopping by waves or sudden increases in volume and to provide adequate slope protection against surface erosion and sudden drawdown; and

21.2.c. Have a stable foundation during all phases of construction and operation and be designed based on adequate and accurate information on the foundation conditions.

21.2.d. Incorporate lifelines and perimeter fencing for increased safety.

21.3. In constructing the dike or embankment, the operator shall remove all topsoil from the foundation, install cutoff trenches where necessary to ensure stability, provide for proper compaction and ensure against excessive settlement by excluding sod, roots or frozen soil from the embankment. Permanent vegetative cover, free of brush and trees, shall be established on all dikes and embankments

21.4. A pit or impoundment that is constructed in such a manner that it (a) Rises twenty-five (25) feet or more above the natural bed of a stream or watercourse as measured from the downstream toe of the embankment and does or can impound fifteen (15) acre-feet or more of water; or (b) Rises six (6) feet or more above the natural bed of a stream or watercourse as measured from the downstream toe of the embankment and does or can impound fifty (50) acre-feet or more of water is, by definition, a dam and is thereby subject to the provisions of the West Virginia Dam Control Act, W. Va. Code § 22-14-1, et seq.

21.5. Any impoundment that does not meet the criteria of section 21.4 above and that is intended to be left

permanent shall meet the requirements set forth by the United States Department of Agriculture's Natural Resources Conservation Service "Conservation Practice Standard – Ponds" (Code 378). No pits may be left permanent.

21.6. Inspections.

21.6.a. After construction and prior to the placement of any fluid, all pits and impoundments with a capacity of greater than five thousand (5,000) barrels shall be inspected by a West Virginia registered professional engineer to ensure compliance with the certified design and construction plan. If the inspection reveals that the pit or impoundment has been constructed in accordance with the plan, the professional engineer shall certify that in writing to the Chief. Placement of fluid in the pit shall not begin until the certification has been filed with the Chief.

21.6.b. All pits and impoundments with a capacity of greater than five thousand (5,000) barrels containing fluid must be inspected every two (2) weeks for the life of the pit or impoundment and within twenty-four (24) hours of a significant rain event, which shall be defined as rainfall of two (2) inches or more in a six (6) hour period. Such inspection must be conducted by a company representative experienced in pit and impoundment construction. A company official shall certify to the Office monthly that the inspections have been conducted. If an inspection discloses a potential hazard, the company shall inform the Office within twenty-four (24) hours of the inspection the findings and of the emergency procedures implemented for public protection and remedial action.

APPENDIX A

The symbols shall be as follows:

- New Drilling Location: - ○
- New Fracturing or Stimulating Location: - ○ F/S
- Cancelled Application or Permit: - ○ CNC
- Oil Well: - ●
- Gas Well: - ☀
- Dry Hole: - ⊙
- Liquid Injection Well: - ⊙ LI
- Waste Disposal Well: - ⊙ WD
- Abandoned Well: - ⊙ - ☀ - ⊙ LI - ⊙ WD