

NOTICE OF AGENCY APPROVAL

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

Division of Oil and Gas - Series 1 through 8

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

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



Signature of Commissioner

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OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

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WEST VIRGINIA LEGISLATIVE RULE
 DEPARTMENT OF ENERGY
 DIVISION OF OIL AND GAS
 CHAPTER 22-1, 22B-1 and 20-5A
 SERIES 3

SECRETARY OF STATE

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Title: Underground Injection Control

Section 1. General

1.1 Scope. This rule sets forth criteria and standards for the requirements which apply to the State Underground Injection Control Program (UIC) as it relates to the exploration, development, production, storage and recovery of oil and gas and related mineral resources in this state. The UIC permit program regulates underground injection by five (5) classes of wells. The five (5) classes of wells are set forth in Section 5 of this rule. Underground injection which is not authorized either by rule or by permit is unlawful.

1.2 Authority. W.Va. Code §§22-1-13, 22-1-15, 22-1-16; 22B-1-2; 22B-1-7(b)(6); 20-5E-7(h); 20-5A-1 through 24.

1.3 Filing Date.

1.4 Effective Date. This rule shall become effective upon the date of the proclamation by the Governor pursuant to W. Va. Code §22-1-20 stating that final approval of the transfer of this program has been given by the United States Environmental Protection Agency or that such final approval is not necessary.

1.5 Former Rule Superseded. This legislative rule supersedes in part West Virginia Administrative Regulations, "State Water Resources Board, Chapter 20-5A, Series IX Regulations for the West Virginia Underground Injection Control Program," in effect on July 11, 1985, to the extent that those regulations conflict with the authority of the Department of Energy set forth in Section 1.2 of this rule. Such regulations were continued in effect pursuant to W.Va. Code §22-1-15 for the benefit of the Department of Energy to the extent that they pertained to the provisions of The West Virginia Energy Act.

1.6 Incorporation by Reference. All incorporations by reference in this rule (Series 3) of federal regulations shall refer to those federal provisions in effect as of May 1, 1986. A copy of the incorporated regulations was filed with the Secretary of State on May 14, 1986.

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Section 2. Specific Inclusions and Exclusions.

2.1 Specific inclusions. Wells included among those types of injection activities which are covered by this rule are those set forth at 40 C.F.R. §144.1(g)(1). (This list is not intended to be exclusive but is for classification only).

2.2 Specific exclusions. Wells which are not covered by this rule are those set forth at 40 C.F.R. §144.1(g)(2).

Section 3. Definitions.

Unless the context in which used clearly requires a different meaning, the definitions set forth in W.Va. Code §§22-1-3 and 22B-1-1 shall apply to this rule, along with the definitions contained in the EPA Injection Wells Criteria (40 C.F.R. §146.3), and UIC Permit Rules (40 C.F.R. §144.3). The statutory definitions contained in W.Va. Code §§22-1-3 and 22B-1-1 shall control in the event of conflict between state and federal definitions. Each time the word "EPA" or "Administrator" or "Regional Administrator" appears in the federal regulations, it shall be construed to mean the Director of the Division of Oil and Gas, unless the context clearly indicates the term to stand as "EPA."

The following definitions shall apply:

3.1 "State" means the State of West Virginia.

3.2 "State Act" means The West Virginia Energy Act, W.Va. Code §§22-1-1 through 22-13-3, 22A-1-1 through 22A-6-6; and 22B-1-1 through 22B-4-13.

Section 4. Criteria for Exempted Aquifers.

The requirements of 40 C.F.R. §146.4 are incorporated by reference.

Section 5. Classification of Injection Wells.

The requirements of 40 C.F.R. §144.6 are incorporated by reference.

Section 6. Area of Review.

The requirements of 40 C.F.R. §146.6 are incorporated by reference.

Section 7. Corrective Action.

The requirements of 40 C.F.R. §146.7 are incorporated by reference.

Section 8. Mechanical Integrity.

The following requirements of 40 C.F.R. §146.8 are incorporated by reference:

8.1 40 C.F.R. §146.8(a); §146.8(b)(1) and (2); §146.8(c)(1), (c)(3) and (c)(4); §146.8(d) and §146.8(e).

8.2 Mechanical integrity for Class II wells may be demonstrated by any requirement determined necessary under Section 12 of this rule (Series 3).

Section 9. Requirements For Wells Injecting Hazardous Waste.

The following requirements of 40 C.F.R. §144.14 are incorporated by reference.

- 9.1 Applicability - 40 C.F.R. §144.14(a);
- 9.2 Authorization - 40 C.F.R. §144.14(b);
- 9.3 Requirements - 40 C.F.R. §144.14(c);
- 9.4 Notification - 40 C.F.R. §144.14(c)(1);
- 9.5 Identification Number - 40 C.F.R. §144.14(c)(2);
- 9.6 Manifest System - 40 C.F.R. §144.14(c)(3);
- 9.7 Manifest discrepancies - 40 C.F.R. §144.14(c)(4);
- 9.8 Operating record - 40 C.F.R. §144.14(c)(5);
- 9.9 Annual report - 40 C.F.R. §144.14(c)(6);
- 9.10 Unmanifested waste report - 40 C.F.R. §144.14(c)(7);
- 9.11 Personnel training - 40 C.F.R. §144.14(c)(8);
- 9.12 Certification of closure - 40 C.F.R. §144.14(c)(9); and

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9.13 Additional requirements for Class IV wells [Reserved] - 40 C.F.R. §144.14(d).

Section 10. Plugging and Abandoning Class I and III Wells.

The requirements set forth at 40 C.F.R. §146.10 are incorporated by reference, except to the extent applicable to Class II wells. Plugging and abandonment requirements for Class II wells shall be those required pursuant to Series 1, Section 7 of the Division's rules.

Section 11. Criteria and Standards Applicable to Class I Wells.

11.1 Applicability. The requirements of 40 C.F.R. §146.11 are incorporated by reference.

11.2 Construction Requirements. The requirements of 40 C.F.R. §146.12 are incorporated by reference. Additionally, the following requirements shall apply:

11.2.1 Each Class I well shall be sited in an area which has an overlying confining bed that is free of known faults or fractures within the area of review.

11.2.2 All parts of Class I wells which will come into contact with corrosive fluids (whether injected or in the native environment) shall be constructed of corrosion resistant material.

11.2.3 For new Class I wells, the compatibility of injected fluids with formation fluids will be determined and such information submitted to the Director.

11.3 Operating, Monitoring and Reporting Requirements. The requirements of 40 C.F.R. §146.13 are incorporated by reference. Additionally, the following requirements shall also apply:

11.3.1 Results of the required monitoring must be maintained for at least three (3) years.

11.3.2 Written notice must be given to the Director within thirty (30) days after any compliance schedule date whether the permittee has or has not complied with the requirement in question.

11.3.3 Immediate reports must be made to the Director of any violation of a permit condition or malfunction of the

injection system which may cause fluid migration into or between underground sources of drinking water.

11.4 Information to be Considered by the Director. The requirements set forth at 40 C.F.R. §146.14 are incorporated by reference. In addition, the Director shall consider the following information prior to the issuance of a permit for a Class I well:

11.4.1 Any increase in the amount of hazardous waste or change in the type of hazardous waste injected.

11.4.2 Feasibility of monitoring permeable strata located between the injection zone and underground sources of drinking water.

11.4.3 Such other information as the Director may reasonably require.

11.5 Mid-course Evaluation Requirements. The requirements of 40 C.F.R. §146.15 are incorporated by reference.

Section 12. Criteria and Standards Applicable to Class II Wells.

12.1 The criteria and standards applicable to Class II wells shall be those which are required pursuant to Series 1, Section 7 of the Division's rules and any other requirements that the Director considers reasonably necessary to ensure that no pollution of underground sources of drinking water occurs.

12.2 Class II wells shall either be authorized by rule or owners and operators shall obtain permits in accordance with the requirements of this rule.

Section 13. Criteria and Standards Applicable to Class III Wells.

13.1 Applicability. The requirements of 40 C.F.R. §146.31 are incorporated by reference.

13.2 Construction Requirements. The requirements of 40 C.F.R. §146.32 are incorporated by reference. Additionally, the following requirements shall also apply:

13.2.1 All parts of Class III wells which will come into contact with corrosive fluids (whether injected or in the

natural environment) shall be constructed of corrosive resistant material.

13.2.2 The following logs and tests shall be made on surface casing intended to protect underground sources of drinking water:

13.2.2.1 Resistivity, spontaneous potential, and caliper logs before the casing is installed; and

13.2.2.2 A cement bond, temperature, or density log after the casing is set and cemented.

13.2.3 For intermediate and long strings of casing intended to facilitate injection:

13.2.3.1 Resistivity, spontaneous potential, porosity and gamma ray logs before the casing is installed;

13.2.3.2 Fracture finder logs in appropriate situations as prescribed by the Director; and

13.2.3.3 A cement bond, temperature or density log after the casing is set and cemented.

13.2.4 Where the injection zone is a formation which is naturally water bearing, the following information (in addition to that required by 40 C.F.R. §146.32) concerning the injection zone shall be determined or calculated for new Class III wells or projects:

13.2.4.1. The nature and volume of the injected fluid, the formation water and the process by products.

13.3 Operating, Monitoring, and Reporting Requirements. 40 C.F.R. §146.33. The following additional requirements shall also apply:

13.3.1 Written notice must be given to the Director within thirty (30) days of any compliance schedule date of whether the permittee has or has not complied with the requirement in question.

13.3.2 Immediate reports must be made to the Director on any violation of a permit condition or malfunction of the injection system which may cause fluid migration into underground sources of drinking water.

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13.4 Information to be Considered by the Director. The requirements set forth at 40 C.F.R. §146.34 are incorporated by reference.

13.5 Mid-course Evaluation. The requirements of 40 C.F.R. §146.35 are incorporated by reference.

Section 14. Criteria and Standards Applicable to Class IV Wells.

The construction and operation of all Class IV wells is prohibited.

Section 15. Criteria and Standards Applicable to Class V Wells.

The following provisions of 40 C.F.R. are hereby incorporated by reference:

15.1 Applicability - 40 C.F.R. §146.51;

15.2 Inventory and Assessment - 40 C.F.R. §146.52. In addition, the following requirements shall apply:

15.2.1 If at any time the Director gains knowledge of a Class V well which presents a significant risk to the health of persons, he shall prescribe such action as necessary.

15.2.2 All Class V wells shall be authorized by rule unless the Director requires an individual permit.

Section 16. Underground Injection Well Permitting Program.

16.1 Prohibition of Unauthorized Injection. 40 C.F.R. §144.11 is incorporated by reference.

16.2 Prohibition of Movement of Fluid Into Underground Sources of Drinking Water. 40 C.F.R. §144.12 is incorporated by reference.

16.3 Authorization of Underground Injection by Rule. The requirements of 40 C.F.R. Part 144, Subpart C are incorporated by reference.

Section 17. Authorization by Permit.

17.1 Application for a Permit; Authorization by Permit. The requirements of 40 C.F.R. §144.31 are incorporated by reference.

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17.2 Area Permits. The requirements of 40 C.F.R. §144.33 are incorporated by reference.

17.3 Emergency Permits. The requirements of 40 C.F.R. §144.34 are incorporated by reference.

17.4 Additional Conditions Applicable to all UIC Permits. The following conditions, in addition to those set forth elsewhere in these regulations, apply to all UIC permits and shall be incorporated into all permits either expressly or by reference. If incorporated by reference, a special citation to these rules must be given in the permit.

17.4.1 The permittee need not comply with the provisions of this permit to the extent and for the duration such non-compliance is authorized in a temporary emergency permit under Section 17.3.

17.4.2 The permittee shall retain all records concerning the nature and composition of injected fluids until three (3) years after completion of any plugging and abandonment procedures specified under Sections 10 and 12. The Director may require the owner or operator to deliver the records to the Director at the conclusion of the retention period.

17.4.3 With the exception of all new wells authorized by an area permit under Section 17.2, a new injection well may not commence injection until construction is complete; and

17.4.3.1 The permittee has submitted notice of completion of construction to the Director; and

17.4.3.2 The Director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the permit; and

17.4.3.3 The permittee has not received notice from the Director of his or her intent to inspect or otherwise review the new injection well within thirteen (13) days of the date of the notice in Section 17.4.3.1, of this section, in which case prior inspection or review is waived and the permittee may commence injection. The Director shall include in the notice a reasonable time period in which he or she shall inspect the well.

17.4.4 The following shall be included as information which must be reported under Section 17.8.

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17.4.4.1 Any monitoring or other information which indicates that any contaminant may cause an endangerment to a USDW; and

17.4.4.2 Any non-compliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between the USDWs.

17.4.5 The permittee shall notify the Director at such times as the permit requires before conversion or abandonment of the well or in the case of area permits before closure of the project.

17.4.6. A single permit for the construction and operation of any underground injection well subject to these regulations shall be issued by the Director, subject only the condition that an appropriate mechanical integrity test be submitted to the Director prior to operation.

17.4.7 The permittee shall be authorized to inject into such a well at a pressure up to 90% of the breakdown pressure of the injection formation. The permittee shall provide the Director with the results of an injection pressure test or such other information as would establish the breakdown pressure of the formation to the satisfaction of the Director. Injection pressures in excess of 90% may be authorized on a case-by-case basis at the discretion of the Director. In no case, however, may the injection pressure be allowed to exceed the fracture pressure of the formation.

17.5 Establishing Permit Conditions. The requirements of 40 C.F.R. §144.52 are incorporated by reference with the exception of 40 C.F.R. §144.52(a)(6). In lieu of the requirements of that section, the following requirement shall apply:

17.5.1 Plugging and Abandonment. Any Class I, II, or III permit shall include, and any Class V permit may include conditions to ensure that plugging and abandonment of the well will not allow the movement of fluids either into an underground source of drinking water or from one underground source of drinking water to another. Any applicant for a UIC permit shall be required to submit a plan for plugging and abandonment. Where the plan meets the requirements of this paragraph, the Director shall incorporate it into the permit as a condition. Where the Director's review of an application indicates that the permittee's plan is inadequate, the Director shall require the applicant to revise the plan, prescribe conditions meeting the

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requirements of this paragraph, or deny the application. For the purposes of this paragraph, temporary intermittent cessation of injection operations is not abandonment. Any well which is not in use for a period of twelve consecutive months shall be presumed to have been abandoned and shall promptly be plugged by the operator in accordance with the applicable provisions of these regulations, unless the operator furnishes satisfactory proof to the Director that there is a bona fide future use for such well.

17.6 Corrective Action. The requirements of 40 C.F.R. §144.55 are incorporated by reference.

17.7 Signatories to Permit Applications and Reports. The requirements of 40 C.F.R. §144.32 are incorporated by reference.

17.8 Conditions Applicable to All Permits. The requirements of 40 C.F.R. §144.51 are incorporated by reference.

17.9 Duration of Permits. The requirements of 40 C.F.R. §144.36 are incorporated by reference, except that UIC Permits shall have a fixed term of five (5) years, and, upon a timely and complete application for permit reissuance, the Director may, at his discretion, extend the permit term for a period not to exceed eighteen (18) months beyond its expiration date.

17.10 Schedules of Compliance. The requirements of 40 C.F.R. §144.53 are incorporated by reference.

17.11 Requirements for Recording and Reporting of All Monitoring Results. The requirements of 40 C.F.R. §144.54 are incorporated by reference.

17.12 Effect of a Permit. The requirements of 40 C.F.R. §144.35 are incorporated by reference.

17.13 Transfer of Permits. The requirements of 40 C.F.R. §144.38 are incorporated by reference.

17.14 Modification or Revocation and Reissuance of Permits. The requirements of 40 C.F.R. §144.39 and 40 C.F.R. §124.5, (except §124.5(f) and (g)) are incorporated by reference.

17.15 Termination of Permits. The requirements of 40 C.F.R. §144.40 are incorporated by reference.

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17.16 Minor Modification of Permits. The requirements of 40 C.F.R. §144.41 are incorporated by reference.

17.17 Confidentiality of Information. The requirements of 40 C.F.R. §144.5 are incorporated by reference.

17.18 Identification of Underground Sources of Drinking Water and Exempted Aquifers. The requirements of 40 C.F.R. §144.7 are incorporated by reference.

17.19 Public Access to Information. The public is assured access to any information submitted pursuant to this rule consistent with the State Freedom of Information Act, W.Va. Code §29B-1-1 et seq. and Series 10 of the Division's regulations. Any information submitted may be claimed as confidential by the submitter in accordance with that Act except that the following may not be claimed as confidential:

17.19.1 The name and address of any permit applicant or permittee;

17.19.2 Permit applications, permits, and effluent data (unless such information, if made public, would divulge methods or processes entitled to protection as trade secrets).

17.20 Public Notice of Permit Actions and Public Comment Period. The requirements of 40 C.F.R. §124.10 are incorporated by reference.

17.21 Public Comments and Requests for Public Hearings. The requirements of 40 C.F.R. §124.11 are incorporated by reference.

17.22 Public Hearings. The requirements of 40 C.F.R. §124.12 are incorporated by reference.

17.23 Reopening of the Public Comment Period. The requirements of 40 C.F.R. §124.14 are incorporated by reference.

17.24 Response to Comments. The requirements of 40 C.F.R. §124.17 are incorporated by reference.

17.25 Fact Sheet. The requirements of 40 C.F.R. §124.8 are incorporated by reference.

17.26 Draft Permits. The requirements of 40 C.F.R. §124.6 are incorporated by reference.

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17.27 Noncompliance Reporting. The requirements of
40 C.F.R. §144.8 are incorporated by reference.