



Series 3

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS
1615 Washington Street, East
Charleston, West Virginia 25311
Telephone: 348-3500

ARCH A. MOORE, JR.
Governor

JOHN H. JOHNSTON
Director

NOTICE OF PUBLIC HEARING OR COMMENT PERIOD ON A PROPOSED RULE

PUBLIC HEARING

AGENCY: DEPARTMENT OF ENERGY

RULE TYPE: LEGISLATIVE

RULE TITLE: SERIES 1 THROUGH 10 OF THE OIL AND GAS
REGULATIONS

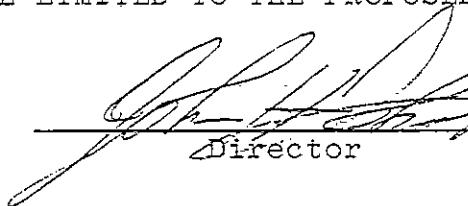
A PUBLIC HEARING ON THE ABOVE PROPOSED RULE WILL BE HELD AT 10:00 a.m.
ON JULY 1, 1986, AT SOUTH BRIEFING ROOM, CULTURAL CENTER, STATE
CAPITOL COMPLEX, CHARLESTON, WEST VIRGINIA.

COMMENTS ARE LIMITED TO: ORAL WRITTEN BOTH X

COMMENTS MAY ALSO BE MAILED TO: ROGER T. HALL, DEPARTMENT OF ENERGY,
1615 WASHINGTON STREET, EAST, CHARLESTON, WEST VIRGINIA, 25311.

THE DEPARTMENT REQUESTS THAT PERSONS WISHING TO MAKE COMMENTS AT THE
HEARING MAKE AN EFFORT TO SUBMIT WRITTEN COMMENTS IN ORDER TO
FACILITATE A REVIEW OF THESE COMMENTS.

THE ISSUES TO BE HEARD SHALL BE LIMITED TO THE PROPOSED RULE.


Director

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DIVISION OF OIL AND GAS
STATE DEPARTMENT OF ENERGY

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STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 DIVISION OF MINES AND MINERALS
 1615 Washington Street, East
 Charleston, West Virginia 25311
 Telephone: 348-3500

ARCH A. MOORE, JR.
 Governor

May 14, 1986

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 DEPARTMENT OF ENERGY
 SECRETARY OF STATE

Honorable Ken Hechler
 Secretary of State
 State Capitol Building
 Charleston, West Virginia 25305

Dear Secretary Hechler:

Please find enclosed one copy of proposed legislative rules for the West Virginia Department of Energy to be recorded and filed with your office. This submittal includes the proposed rule "West Virginia Department of Energy, Division of Oil and Gas, Chapter 22-1, Chapter 22B-1, Series 1-10", a preamble to the regulations, the public hearing and comment notice, and the accompanying fiscal note.

I respectfully request that these documents be appropriately processed by your office. If you have any questions regarding this matter, please feel free to contact Roger T. Hall at 348-3500.

Sincerely,

John H. Johnston
 Director
 Division of Oil and Gas

JHJ/rha

FISCAL NOTE FOR PROPOSED RULES

Rule Title: West Virginia Legislative Rules, Department of Energy,
Division of Oil and Gas, Chapters 22-1 and 22B-1, Series 1-10

Type of Rule: X Legislative Interpretive Procedural

Agency: WV Department of Energy Address: 1615 Washington Street, East
 Division of Oil and Gas Charleston, WV 25311

1. Effect of Proposed Rule	ANNUAL		FISCAL YEAR		
	Increase	Decrease	Current	Next	Thereafter
Estimated Total Cost	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-
Personal Services	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-
Current Expense	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-
Repairs and Alterations	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-
Equipment	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-
Other	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-

2. Explanation of above estimates.

No anticipated economic impact.

3. Objectives of these rules:

See attached preamble.

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 DEPT. OF STATE
 SECRETARY'S OFFICE

4. Explanation of Overall Economic Impact of Proposed Rule.

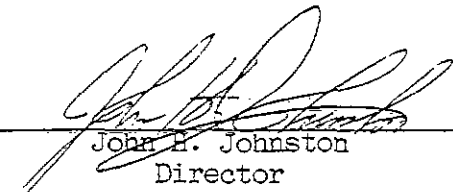
A. Economic Impact on State Government.

B. Economic Impact on Political Subdivisions; specific Industries;
Specific groups of citizens.

C. Economic Impact on Citizens/Public at Large.

Date May 14, 1986

Signature of Agency Head or Authorized Representative



John F. Johnston
Director
Division of Oil and Gas

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

FILED IN THE OFFICE OF
THE SECRETARY OF STATE
THIS DATE May 14, 1986
ADMINISTRATIVE LAW DIVISION

Title: Underground Injection Control

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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

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 4 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.

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.

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).

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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
- 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.

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Series 3, Sec. 10

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:

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Series 3, Sec. 13

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 Chief; 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.

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

14.1 Prohibition of Class IV Wells - 40 C.F.R. §144.13;

14.2 Requirements for Wells Injecting Hazardous Waste - 40 C.F.R. §144.14.

14.3 Closure of Class IV Wells - 40 C.F.R. §144.23.

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.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 17

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

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.

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.

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

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permittee's plan is inadequate, the Director shall require the applicant to revise the plan, prescribe conditions meeting the requirements of this paragraph, or deny the application. For the purposes of this paragraph, temporary intermittent cessation of injection operations is not abandonment.

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.

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

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Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 17

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.

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

DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

FILED
1986 MAY 14 PM 1:45
OFFICE OF THE SECRETARY OF STATE

NOTICE OF PUBLIC HEARING
AND COMMENT PERIOD ON PROPOSED RULES

SUMMARY: The Department of Energy, Division of Oil and Gas proposes to promulgate legislative and procedural rules to satisfy the requirements of The West Virginia Energy Act applicable to the responsibilities of the Division of Oil and Gas. The regulations being proposed have as their objective the full implementation of the statutory responsibilities imposed by The West Virginia Energy Act on the Division of Oil and Gas.

After considering comments received in response to this proposal, the Division of Oil and Gas will revise the proposed rules and submit them to the Commissioner of the Department of Energy for his review. Subsequently, the rules will be submitted to the Legislative Rule-Making Review Committee prior to presentation to the Legislature.

PUBLIC HEARING: The Department of Energy, Division of Oil and Gas will hold a public hearing on these proposed rules on July 1, 1986, at 10:00 a.m. The public hearing will be held in the South Briefing Room, Cultural Center, State Capitol Complex, Charleston, West Virginia. Requests to participate in the public hearing should be filed with Roger T. Hall, Department of Energy, 1615 Washington Street, East, Charleston, West Virginia, 25311 on or before June 24, 1986. Priority for oral presentations will be

given to those persons who have filed a timely request to make an oral presentation. The Division cannot guarantee an opportunity to speak to persons who have not made such a timely request. The hearing will begin at 10:00 a.m. Registration for speakers and attendees will begin at 9:30 a.m. Oral and written statements may be submitted at the public hearings. Speakers will be restricted to 20 minutes.

WRITTEN COMMENTS: The Department of Energy, Division of Oil and Gas will accept and consider written public comments on these proposals which are received at its offices in Charleston on or before 4:30 p.m. on July 8, 1986. Send comments to Roger T. Hall, Department of Energy, 1615 Washington Street, East, Charleston, West Virginia 25311. The Agency asks that comments be as specific as possible and that suggested revisions or corrections be supported by data where appropriate. All comments should identify the section number of the proposed rules to which they are directed.

All comments on this proposal will be available for inspection and copying at the Department of Energy, Division of Oil and Gas, 1615 Washington Street, East, Charleston, West Virginia 25311. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Questions regarding this notice and the proposed rules should be addressed to Roger T. Hall, at (304) 348-3500.

PREAMBLE TO THE PROPOSED RULES
OF THE DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

- I. Legal authority
- II. Background
- III. Proposed rules

- A. Series 1 - Oil and Gas Wells and Other Wells
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- C. Series 3 - Underground Injection Control
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- H. Series 8 - Hazardous Waste Management
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IV. Solicitation of Comments

I. LEGAL AUTHORITY

The regulations described in this notice are proposed under the authority of Chapters 22 and 22B of The West Virginia Energy Act.

II. BACKGROUND

On April 12, 1985, the West Virginia Legislature passed The West Virginia Energy Act making it effective 90 days from passage (July 11, 1985). The Act is codified at 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 (1985 Repl. Vol.). In passing The West Virginia Energy Act, the Legislature found that there was need for the consolidation of regulatory power under a single department of state government to, among other things, achieve "more efficient administration, avoid unnecessary delays in permitting and other matters, provide better and more expeditious enforcement and

application of environmental and safety laws" with a view towards making the state's mineral development industry "more competitive with that in other energy producing states." W.Va. Code §22-1-2 (1985 Repl. Vol.).

In that Act, the Legislature found the public policy of the State to be:

(a) To foster, encourage and promote the exploration for and the development, production, utilization and conservation of coal, oil and gas and other mineral resources of the state through the fullest practical means, and at the same time promote economic development in the state, protect the environment and enhance safety and health in these vital industries;

(b) To provide a comprehensive program for the exploration, conservation, development protection, enjoyment, recovery and use of coal, oil and gas, and other mineral resources in this state;

(c) To aid in such a comprehensive program by creating a single department, designated the department of energy, to have the regulatory powers with respect to this industry and to have the general duties and responsibilities heretofore existing in the department of natural resources and department of mines, and that the department will perform such duties and functions in conjunction with the respective boards and commissions which are herein continued in effect;

(d) To expedite and facilitate the issuance of permits for mines, surface mining operations, oil and gas wells and other well work; to avoid conflicting permitting requirements and regulations in this state or with federal agencies; and to provide uniform policies with respect to this industry;

(e) To provide for a single agency of this state to implement requirements and programs of federal law affecting the exploration, development, production, recovery and

utilization of coal, oil and gas, and other mineral resources in this state;

(f) To provide for an agency of this state which can be consulted with by other agencies of this state prior to the adoption or implementation of rules, regulations, standards, programs or requirements affecting the exploration, development, production, recovery and utilization of coal, oil and gas, and other mineral resources in this state.

W.Va. Code §22-1-2 (1985 Repl. Vol.).

The West Virginia Energy Act vested exclusive jurisdiction in the Department of Energy over the issuance of regulations or any and all permits and other governmental authorizations required, or to be required, in all matters pertaining to the exploration, development, production, storage and recovery of coal, oil and gas and other mineral resources including all safety, conservation, land, water, waste disposal, reclamation and environmental regulations, permits and authorizations related to such activities as are called for pursuant to the following statutes:

W.Va. Code 20-5 (Water Resources)

W.Va. Code 20-5A (Water Pollution Control Act)

W.Va. Code 20-5D (Dam Control Act)

W.Va. Code 20-5F (Solid Waste Management Act)

The Department of Energy was specially designated to be the lead regulatory agency for West Virginia for purposes of federal legislation relating to such activities. In addition, the Department of Energy was empowered with the responsibility for

implementing certain provisions of the State Hazardous Waste Management Act, W.Va. Code 20-5E-1 through 23 (1985 Repl. Vol.).

Beyond these general requirements, Chapter 22B of The West Virginia Energy Act establishes a broad range of regulatory requirements impacting on the oil and gas industry and related matters. Many of the provisions in Chapter 22B were previously within the jurisdiction of the former Department of Mines. Other provisions were previously within the jurisdiction of the Department of Natural Resources. The regulations of other agencies are superseded, in part, as of July 11, 1985 (the effective date of the Energy Act) to the extent that those regulations conflict with the regulatory authority of the Department of Energy.

Under The West Virginia Energy Act, the Director of the Division of Oil and Gas is given the general power to propose or promulgate rules and regulations; however, the Director is obligated to submit his final action to the Commissioner of the Department of Energy for approval prior to the filing of any such regulations with the Legislative Rule-Making Review Committee.

There are several bases for the jurisdiction vested in the Department of Energy by The West Virginia Energy Act to implement the five designated environmental statutes identified above and found in Chapter 20 of the West Virginia Code. The Department's jurisdiction in this area is primarily established by W.Va. Code §22-1-16 (1985 Repl. Vol.).

Except as otherwise expressly provided in this chapter or in chapters twenty-two-a or twenty-two-b of this code, jurisdiction over the issuance of regulations, or any and all permits and other governmental authorizations required or to be required in all matters

pertaining to the exploration, development, production, storage and recovery of coal, oil and gas, and other mineral resources in this state, including all safety, conservation, land, water, waste disposal, reclamation and environmental regulations, permits and authorizations called for pursuant to articles five, five-a, five-d, and five-f, chapter twenty of this code, and the enforcement and implementation thereof is vested exclusively in the department of energy. The department of energy is hereby designated as the lead regulatory agency for this state for all purposes of federal legislation relating to such activities.

W.Va. Code §22-1-16. (1985 Repl. Vol.)

Additionally, the Department of Energy was empowered with the responsibility for implementing certain provisions of W.Va. Code §20-5E relating to the State Hazardous Waste Management Act.

W.Va. Code §20-5E-7(h) provides, in relevant part, that:

(h) To the extent that this article relates to activities with respect to oil and gas wells, liquid injection wells and waste disposal wells now regulated by articles four, four-b and seven, chapter twenty-two of this code, the administrator of the office of oil and gas and the shallow gas well review board has the jurisdiction with respect to the regulation of such activities and shall promulgate such rules and regulations as may be necessary to comply with the requirements of this article.

W.Va. Code §20-5E-7(h) (1985 Repl. Vol.).

Finally, other provisions of the West Virginia Energy Act clearly provide that specific activities are within the scope of jurisdiction of the Department of Energy.

The Department believes that each of the three previously mentioned bases of jurisdiction has a definite scope which authorizes regulation (through rules, permits, or other governmental authorizations), certain activities carried on in this

State. In order to better facilitate the understanding of the regulated community and the public, a more complete discussion of the scope of the Department's jurisdiction is set forth below.

"Exploration, Development, Production, Storage and Recovery" - In defining the scope of the jurisdiction of the Department of Energy, an interpretation of the phrase "exploration, development, production, storage and recovery of . . . oil and gas, and other mineral resources in this State" is essential. There appear to be two distinct sources for the phrase "exploration, development, production storage and recovery."

The terms "exploration, development, production" appear to have been taken from the State Hazardous Waste Management Act, W.Va. Code §20-5E-1 through 23 (1985 Repl. Vol.). That Act exempts from the coverage of its provisions, pending satisfactory completion of certain conditions precedent, "drilling fluids, produced waters and other wastes associated with the exploration, development or production of crude oil or natural gas or geothermal energy." W.Va. Code §20-5E-6(a)(2)(A) (iv) (1985 Repl. Vol.) (emphasis added). An analysis of the comparable federal provisions found in sections 3001(b)(2)(A) and 3002(m) of the Resource Conservation and Recovery Act, 42 U.S.C.S. §6901 et seq. (1982 & 1985 Cumm. Supp.) ["RCRA"] (after which the State provisions were obviously modeled) indicates, in addition to excluding drilling fluids and produced waters from regulation, that a specific universe of wastes was contemplated within the terms "other wastes associated with the exploration,

development or production of crude oil or natural gas or geothermal energy."

The term 'other wastes associated' is specifically included to designate waste materials intrinsically derived from the primary field operations associated with the exploration, development or production of crude oil, natural gas, or geothermal energy. It should cover such substances as: Hydrocarbon bearing soil in and around the related facilities; drill cuttings; materials (such as hydrocarbons, water, sand and emulsion) produced from a well in conjunction with crude oil, natural gas, or geothermal energy; and the accumulated material (such as hydrocarbon, water, sand and emulsion) from production separators, fluid testing vessels, storage vessels and production impoundments.

The phrase 'intrinsically derived from the primary field operations . . .' is intended to differentiate exploration, development and production operations from transportation (from the point of custody transfer or of production separation and dehydration) and manufacturing operations.

H. Conf. Rep. No. 96-1444, 96th Cong., reprinted in 1980 U.S. Code Cong. & Ad. News 5019, 5031.

EPA has recently offered one possible interpretation of the scope of the terms "exploration, development or production of crude oil or natural gas or geothermal energy" in its draft sampling strategy for completion for the study required by section 8002(m) of RCRA. Office of Water Regulations and Standards-Industrial Technology Division, U.S.E.P.A., Oil and Gas Exploration, Development and Production - Sampling Strategy - Draft (May 5, 1986) [hereinafter "Draft Sampling Strategy"].

According to legislative history for the 1980 RCRA amendments, Congress intended to exempt only those waste streams associated with exploration, development, and production activities for oil and gas, and for

geothermal resources. Wastes generated from the transportation of oil, gas, or geothermal fluids, from natural gas processing, or from oil refining would not be considered to be within the scope of the exemption. Based on the legislative history, EPA interprets the exemption to include only those waste streams generated from exploration, development, and production of oil and geothermal resources.

Some of the waste streams include:

- drilling fluids
- well treatment fluids
- completion fluids
- workover fluids
- produced water
- produced sand
- tank bottom sludges

However for the oil and gas extraction industry, the exemption is not interpreted to include those wastes produced from pipelines (for example, from hydrostatic testing or from pipeline operations). Nor does the exemption include waste streams from gas processing facilities (for example, spent iron sponge).

Draft Sampling Strategy at 12.

EPA then went on to further elaborate on the scope of the terms "exploration and development" and "production."

Exploration and development activities for the extraction of oil and gas include work necessary to locate, drill, stimulate, and complete wells.

* * *

Production activities include all post-completion work necessary to bring hydrocarbon reserves or geothermal fluids from the producing formation(s) to the point of transmission. These activities include basic oil/water/sediment separation, separation of gas liquids from natural gas, gas dehydration, pumping, collection, storage, and other production practices.

Draft Sampling Strategy at 13, 15.

The Division will interpret the terms "exploration, development, production" as conferring on it the jurisdiction to regulate the following sources related to activities carried forth pursuant to W.Va. Code §§20-5; 20-5A; 20-5D; and 20-5F:

1. The exploration, development and production of oil up to the point of custody transfer at the metering unit;

2. The exploration, development and production of gas up to the point of entry into the transmission line.

Additionally, the Energy Act also includes the terms "storage and recovery" in defining the agency's jurisdiction over these programs. This language clearly recognizes the Department of Energy's expressed authority to regulate the storage of gas in underground storage reservoirs and the subsequent operation of recovering the stored gas from the reservoir.

West Virginia Hazardous Waste Management Act - As previously noted, W.Va. Code §20-5E-7(h) vests regulatory jurisdiction over hazardous waste activities relating to oil and gas wells, liquid injection wells and waste disposal wells regulated, at that time, by the Administrator of the Office of Oil and Gas and the Shallow Gas-Well Review Board. Because The West Virginia Energy Act replaced the Administrator of the Office of Oil and Gas with the Director of the Division of Oil and Gas, the Director now has the regulatory authority formerly given to the Administrator by that provision. The Division interprets this language as conferring jurisdiction on it in the following areas:

1. Should it be necessary at some point in the future for "drilling fluids, produced waters and other wastes associated with the exploration, development or production of crude oil or natural gas or geothermal energy" to be regulated as a hazardous waste following action by U.S.EPA, and both houses of Congress, and declaration by the Governor [pursuant to W.Va. Code §20-5E-6(a)(2)(A)], it will be the responsibility of the Division to determine how such wastes will be identified or listed as hazardous waste and how such wastes will be managed;

2. To the extent that it is appropriate to regulate under the state Hazardous Waste Management Act any waste associated with the storage and recovery of gas, that regulation will be undertaken by the Division; and

3. Class I and Class IV wells under the State Underground Injection Control Program (Series 3 of these proposed rules) would be appropriately regulated by the Department of Energy, if such wells are related to the disposal of hazardous waste associated with the wastes described in paragraphs 1. and 2. above.

Other Specific Statutory Provisions Vesting Jurisdiction in the Department of Energy - Remaining terms of The West Virginia Energy Act also make it clear that the following activities, among others, are within the scope of jurisdiction of the Division:

1. Transportation of Oils, W.Va. Code §22B-3;
2. Underground Gas Storage Reservoirs, W.Va. Code §22B-4.

III. PROPOSED RULES

A. Series 1 - Oil and Gas Wells and Other Wells

This series is based upon regulations of the former Department of Mines relating to this topic. The previous regulations have been edited to the extent necessary to reflect the enactment of The West Virginia Energy Act which, among other things, repealed W.Va. Code §22-4 and enacted new articles. Thus, cross-reference have been updated, as well as authority sections. Textual revisions have been made, where appropriate, to create consistency and clarity in the use of language, particularly where technical criteria are defined. Regulations governing hearing and appeal procedures, formerly found in Series 1 of the Department of Mines regulation, have been deleted from this proposed Series 1 and are now contained in the proposed Series 9 rules, Hearing and Appeal Procedures.

In addition to these technical and editing changes, the proposed Series 1 differs from the previous rule in two principal areas.

Section 5, among other things, details requirements related to the designation of operator agents for service of process and notice to the Director of ownership and transfer of title by well owners. The proposed rule provides for designation of agents of operators for purposes of service of process, and requires notice of each change of well ownership and designation of an agent by the transferee operator. The rule encourages designation of a successor agent as an integral part of any well

transfer transaction by providing that the bond furnished by the transferor will not be released until designation of a successor agent for service has been made by the new owner.

Section 10 pertains to the furnishing of bonds with a corporate surety, cash or alternative collateral security required pursuant to The West Virginia Energy Act. The section now addresses the sufficiency of bonds furnished prior to July 11, 1985, in certain cases, and making provisions for additional surety or security with applications where single well or blanket bonds in effect do not meet current requirements and new work is proposed.

In Section 15.1.1 the Division proposes to allow the annual report of oil and gas production to be filed on a report form or in any other form authorized by the Director. This change should facilitate the use of electronic data transfer where the operator has that capability.

Section 16.5.2 is proposed to be changed by deleting the absolute prohibition against the discharge of salt water into fresh water. This change is necessitated by the development of discharge permits which regulate this discharge in a way that assures compliance with technology based and water quality based criteria.

Finally, the Division proposes to add a new section that would allow the Director to address site specific circumstances by deviating from generally applicable requirements in certain cases.

B. Series 2 - Certification of Gas Wells

The Natural Gas Policy Act of 1978, 15 U.S.C.S. §3301 et seq. (1982), was signed into law on November 9, 1978. Pursuant to the provisions of that statute and the regulations promulgated by the Federal Energy Regulatory Commission, various states are permitted to make findings as to certain classes of natural gas wells located within the state. As successor to the former Office of Oil and Gas of the Department of Mines, the Division of Oil and Gas has been authorized to act as the jurisdictional agency for the State to implement the requirements of the Natural Gas Policy Act of 1978.

Series 2 governs and applies to proceedings under W.Va. Code §22B-1-2(c)(11) (1985 Repl. Vol.) concerning gas wells and implementation of the Natural Gas Policy Act of 1978 and pertinent federal regulations.

The proposed Series 2 is based upon a regulation of the former Department of Mines. Series 2 has been edited to the extent necessary to reflect the enactment of The West Virginia Energy Act. This editing of former Part II (now proposed Series 2) required renumbering of sections. In this connection, the former Regulation 36 has been combined with the former Regulations 14 and 24 of Part I and included in Series 4 of these proposed rules.

C. Series 3 - Underground Injection Control

Title XIV of the Public Health Service Act, known commonly as the Safe Drinking Water Act, 42 U.S.C.S. §300f et seq. (1982), requires, among other things, that the EPA

Administrator issue regulations establishing minimum requirements for the regulation of the injection of fluids in order to protect underground sources of drinking water. The Safe Drinking Water Act provides further that states may develop programs known as State Underground Injection Control ["UIC"] Programs based on federally established regulations. If a state program is judged to be "as stringent as" the federal program, a state may obtain primacy for that program and become responsible for its subsequent implementation and enforcement.

In West Virginia, prior to 1985, the State Water Resources Board served as the sole authority for the promulgation of rules and regulations for the control of the State UIC program. West Virginia received delegation of the federal UIC program, effective January 9, 1984. 48 Fed. Reg. 55127 (Dec. 9, 1983). The current version of the Water Resources Board's UIC regulations were filed as emergency regulations on January 6, 1986. Those regulations list as authority for their promulgation, W.Va. Code §20-5A-3(b)(2), which refers generally to the power and authority of that Board to adopt regulations for the prevention, control, and abatement of pollution and to facilitate the State's participation in the National Pollutant Discharge Elimination System under the federal Clean Water Act. Authority for the Department of Natural Resources to issue permits for underground injection wells can be found in W.Va. Code §20-5A-5(b)(7), which provides, in pertinent part, that:

(b) It shall be unlawful for any person, unless he holds a permit therefor from the department, which is in full force and effect, to:

* * *

(7) Operate any disposal well for the injection or reinjection underground of any industrial wastes, including, but not limited to, liquids or gases, or convert any well into such a disposal well or plug or abandon any such disposal well.

W.Va. Code §20-5A-5(b) (7) (1985 Repl. Vol.).

The sole authority of the State Water Resources Board to promulgate regulations and of the Department of Natural Resources to issue permits concerning the underground injection into wells of wastes associated with the exploration, development, production, storage and recovery of oil and gas and related minerals was superceded by the passage of The West Virginia Energy Act. The Energy Act has, as one of its declared purposes:

(e) To provide for a single agency of this state to implement requirements of programs of federal law affecting the exploration, development, production, recovery and utilization of coal, oil and gas, and other mineral resources in this state. . . .

W.Va. Code §22-1-2(e) (1985 Repl. Vol.).

The Department of Energy is to play a lead role in the new regulatory scheme. This is clearly contemplated by W.Va. Code §22-1-6, which provides, in pertinent part, as follows:

Except as otherwise expressly provided in this chapter or in chapters twenty-two-a or twenty-two-b of this code, jurisdiction over the issuance of regulations, or any and all permits and other governmental authorizations required or to be required in all matters pertaining to the exploration, development, production, storage and recovery of coal, oil and gas, and other mineral resources in this state including all safety, conservation, land, water, waste disposal, reclamation and environmental regulations, permits and authorizations of such activities called for pursuant to articles five, five-a, five-d,

and five-f, chapter 20 of this code, and the enforcement and implementation thereof is vested exclusively in the Department of Energy. The Department of Energy is hereby designated as the lead regulatory agency for this state for all purposes of federal legislation relating to such activities.

W.Va. Code §22-1-16 (1985 Repl. Vol.) (emphasis added).

The assumption of the State UIC program by the Department of Energy's Division of Oil and Gas is specifically supported by several statutory provisions found in Chapter 22B of the Energy Act. The Director of the Division of Oil and Gas is required to adopt rules and regulations to assure that the regulations, permits and authorizations issued by the Director are adequate to satisfy the purposes of the Energy Act, particularly with respect to the consolidation of the various state and federal programs which place permitting requirements on the exploration, development, production, storage and recovery of the state's oil and gas. W.Va. Code §22B-1-2(c)(16) (1985 Repl. Vol.).

Additionally, the Director is required to perform such acts as may be necessary or appropriate to secure to the state the benefits of federal legislation establishing programs relating to the exploration, development, production, storage, and recovery of the state's oil and gas, which programs are assumable by the state. W.Va. Code §22B-1-2(c)(17) (1985 Repl. Vol.).

Finally, as it relates to any person conducting activities which are subject to the jurisdiction of the Division of Oil and Gas, the Director is empowered to issue water pollution control permits for the operation of any disposal well for the

injection or reinjection underground of any pollutant, including, but not limited to, liquids or gases, or convert any well into such a disposal well or plug or abandon any such disposal well. W.Va. Code §22B-1-7(b)(6) (1985 Repl. Vol.).

Specific provisions on the drilling of wells for the introduction of liquids to recover oil or for the introduction of liquids for the disposal of pollutants or effluent therefrom and for converting any existing well for such purposes are found in W.Va. Code §22B-1-14 (1985 Repl. Vol.). This section requires the issuance of a permit to drill or convert such wells contingent upon compliance with all of the bonding provisions found in W.Va. Code §22B-1-12 (1985 Repl. Vol.). The well operator additionally must provide a plat prepared by a registered engineer or licensed land surveyor indicating certain statutorily required information. When a well is proposed to be drilled or converted for the purpose, as provided for in W.Va. Code §22B-1-14, and the wells are located above a seam of coal, certain other limitations apply. These limitations are set forth in W.Va. Code §22B-1-16 (1985 Repl. Vol.).

Additional authority for the regulation by the Department of Energy of underground injection wells which inject hazardous waste from oil and gas activities may be found in the State Hazardous Waste Management Act, W.Va. Code §20-5E-1 et seq. (1985 Repl. Vol.). W.Va. Code §20-5E-7(h) provides, in pertinent part, as follows:

(h) To the extent that this article relates to activities with respect to oil and gas wells, liquid injection wells and waste disposal wells now regulated by articles

four, four-b and seven [§§22-4-1 et seq.; repealed; 22-4B-1 et seq.; repealed; 22-7-1 et seq.; repealed], chapter twenty-two of this code, the administrator of the office of oil and gas and the shallow gas-well review board has the jurisdiction with respect to the regulation of such activities and shall promulgate such rules and regulations as may be necessary to comply with the requirements of this article.

The Department of Energy interprets this language as vesting jurisdiction in itself to regulate those wells which inject hazardous waste from facilities relating to the "exploration, development, production, storage and recovery of coal, oil and gas and other mineral resources." A more detailed explanation of this phrase, which defines the scope of the Department of Energy's regulatory jurisdiction in W.Va. Code §22-1-16 (1985 Repl. Vol.), is found in Part II of this Preamble.

It is clear from a review of the previously cited statutory authority that the Division has authority to regulate the great majority of underground injection wells that are presently classified under the existing Series IX regulations of the State Water Resources Board to the extent that those wells, are related to the "exploration, development, production, storage and recovery" of oil and gas and other mineral resources in this State. Under the system of classification used by the Water Resources Board, injection wells are categorized into five classes of wells. These detailed classifications are presently found in Section 4, Series IX of the Board's regulations. An examination of the descriptions of the underground injection wells covered by the State program at the present time indicates

that the great majority of wells in those categories effect the exploration, development, production, storage and recovery of oil and gas and other mineral resources in West Virginia. Under this classification system, it is clear that all Class II and Class III wells fall into this category. Additionally, certain injection wells described in Class I also fall within this description, most specifically those injection wells described in subsections 4.5.b, 4.5.d, 4.5.f, 4.5.g, 4.5.h, and 4.5.j. Finally, those wells in Classes I and IV which inject hazardous waste from mineral resource facilities and those wells in Class V related to mineral resource facilities would also fall under the jurisdiction of the Department of Energy. In short, those wells remaining within the clear jurisdiction of the Department of Natural Resources (DNR) and the Water Resources Board (WRB) would only be a very narrow portion of Class I, IV and V wells unrelated to the exploration, development, production, storage and recovery of oil and gas and other mineral resources in the State. Even those wells that would remain within the jurisdiction of DNR and WRB would be required to obtain permits from DOE under other authority.

The United States Environmental Protection Agency has promulgated regulations on state underground injection control program requirements in 40 C.F.R. Part 145, which relate to the assumption of primacy by states of the underground injection control program. Under the provisions of these regulations, the Agency does not require that authority for state programs reside in a single agency. However, 40 C.F.R. §145.23(b) provides that

if more than one agency is responsible for the administration of the UIC program, each agency must have statewide jurisdiction over a class of activities. The responsibilities of each agency must be delineated, their procedures for coordination set forth, and an agency may be designated as a "lead agency" to facilitate communications between EPA and the various state agencies having program responsibilities. Any state seeking to administer the UIC program must submit a Memorandum of Agreement to EPA for approval. 40 C.F.R. §145.25. The West Virginia Energy Act designates the Department of Energy to be the "lead agency" in the formation and implementation of the State Underground Injection Control Program. Accordingly, these proposed regulations constitute the first step in the assumption of that role. The proposed regulations reflect the adoption of a regulatory scheme for the control of underground injection wells designed to maintain primacy. The concept of incorporation by reference has been used throughout the regulations as a mechanism to assure a more efficient and simple program, from the viewpoint of the regulated community, the Division of Oil and Gas and the public at large. Where provisions are different from, or in addition to, the federal program have been deemed desirable, those provisions have been included in the proposed rule.

The proposed UIC regulations generally incorporate by reference federal language or set forth separately language of the existing UIC regulations of the Water Resources Board where no comparable federal language exists. In two instances, however, language is being proposed by the Director which has no

counterpart in either the federal or Water Resources Board UIC regulations.

First, proposed section 17.4.6 provides that only one permit shall be issued for the construction and operation of any underground injection well covered by the Department of Energy's regulations. Operation of the well shall be conditioned only upon a subsequent mechanical integrity test. This provision was included in the proposed regulations to make it clear that issuance of the UIC permit constitutes approval to commence operation of the well, subject only to acceptable results as a mechanical integrity test.

Second, proposed section 17.4.7 provides that injection pressures at levels up to 90% of the fracture pressure of the injection zone will be allowed in the operation of the well. Injection at pressures in excess of 90% may be approved at the Director's discretion on a case-by-case demonstration by the applicant.

D. Series 4 - State National Pollutant Discharge Elimination System (NPDES)

This series governs the State National Pollutant Discharge Elimination System (NPDES) Program for all facilities and activities affecting the exploration, development, production, storage and recovery of oil and gas, and related mineral resources for point source discharges to surface waters of the State. It is recognized that the Director of the Division of Oil and Gas also has authority to issue other types of water pollution control permits pursuant to W.Va. Code §22B-1-7. These

Series 4 regulations, however, deal with NPDES requirements necessary for the delegation of that program from EPA to the Division of Oil and Gas as outlined in 40 C.F.R. Part 123.

Similar NPDES regulations of the State Water Resources Board were continued in effect by The West Virginia Energy Act until the Division promulgated superseding regulations. These proposed regulations are part of the transition from the Division of Water Resources of the Department of Natural Resources to the Division of Oil and Gas of the Department of Energy for purposes of permit issuance.

The NPDES program implements provisions of the federal Clean Water Act. In order to administer and enforce that program in lieu of EPA, it is necessary that the Division of Oil and Gas promulgate regulations which must be approved by EPA to delegate the program to West Virginia for these point sources.

The proposed regulations essentially incorporate by reference all of the EPA regulations which are necessary to achieve delegation of the NPDES program for the oil and gas industry. Some provisions, which are fully set out in the text of the proposed regulations, differ from the federal regulations or are in addition to those federal regulations, where state law requires deviations. Also, some additional provisions have been included which increase the flexibility of the Director in administering the permit program to take account of fact-specific cases or to deal with areas of regulatory control or permit conditions which have no counterpart EPA regulations, but which

serve to improve the State program. Set forth below are significant features of the proposed regulations.

1. Continuation of expiring permits - The provisions of Section 3.2.4 are modeled on the Water Resources Board rules and W.Va. Code §20-5A-7 which statutorily limits the amount of time a permit can be extended.
2. Confidentiality - EPA has extensive confidentiality regulations in 40 C.F.R. Part 2; however, the Division's proposed rules in Section 3.3 are simple, brief and tied to our State Freedom of Information Act which protects trade secrets. EPA does not at present require adoption of its 40 C.F.R. Part 2 rules for program delegation. The Division's proposed confidentiality rule is similar to that of the Water Resources Board.
3. Separate storm sewers - The existing storm water provisions of the Water Resources Board have been used in these proposed rules in Section 4.3. U.S. EPA's rules are currently in litigation and may well change. The Division will review this requirement in the future when U.S. EPA's rule becomes more certain.
4. Inspection and entry - These provisions in Section 5.3 are more limited than EPA's to conform the rules to state law, W.Va. Code §20-5A-3(d). See 40 C.F.R. §122.41(i).
5. Analytical variability - Sections 5.5 and 6.6.1 recognize the obligation of the permittee to certify as accurate test results which inherently contain analytical variability.

The proposed rule sets forth a mechanism to take this into account in the Division's regulatory program.

6. Real time water quality control - Section 6.2.1 recognizes the control technique of flow management to meet water quality criteria and sets out rules by which toxicity testing and limits may be imposed. The Division's provision includes additional requirements establishing when toxicity testing may be imposed and when water-quality based limits should be imposed. These new provisions are consistent with U.S. EPA's policy on water-quality based permit limits for toxicity pollutants (47 Fed. Reg. 9016-19, Mar. 9, 1984) which recognizes the need for a threshold test on toxicity monitoring and points out that the primary focus of toxicity monitoring should be the protection of the receiving stream.
7. Schedules of compliance - The proposed rules in Section 6.5.1 specifically refer to W.Va. Code §20-5A-7 which deals with when phased abatement may be allowed under state law. This authority is in addition to the provisions incorporated by reference in 40 C.F.R. 122.47.
8. Issuance and effective date of permit - Section 8.11 is in conformity with EPA rules establishing the effective date of a permit but would also allow an earlier effective date if the permittee so requests (less than 30 days).
9. Emergency permit modifications and temporary permits - Section 8.21 provides for an emergency or temporary permit (up to 6 months) and would allow them to be issued for experimental practices. These new provisions would enhance

the Director's regulatory flexibility and allow limited duration permits for special needs.

E. Series 5 - Special Water Pollution Control

This series consists of a number of miscellaneous regulations which relate to the control of water pollution. Initially, the subject matter for each section was derived from counterpart regulations of the State Water Resources Board.

Section 3 of the proposed regulations contains requirements for reporting certain spills and accidental discharges to waters of the State from facilities operated in connection with the exploration, development, production, storage and recovery of oil and gas and related mineral resources in this State. This section requires reporting in three different instances:

(1) Where reporting is required under Section 311 of the federal Clean Water Act;

(2) Where effluent limitations established in any oil and gas general permits are exceeded as a result of an upset or bypass;

(3) Where a pit fails and the result is a discharge to a surface water of the state.

The report is initially made by telephone. A written verification of the report is to be submitted if requested by the Director of the Division of Oil and Gas.

Section 4 sets forth the procedure for determining wasteload allocations for discharges of sewage and other wastes from facilities operated in connection with the exploration,

development, production, storage and recovery of oil and gas and related mineral resources.

Section 5 applies to sewage treatment plants with capacities of 40,000 gallons per day or less which are operated in connection with the exploration, development, production, storage and recovery of oil and gas and related mineral resources.

Section 6 establishes filing fees for permits issued pursuant to W.Va. Code §22B-1-7, including the registration of wells pursuant to the oil and gas general permit for drilling fluids issued by the Division. The \$50.00 fee applies to initial submittals of site specific permit applications only.

F. Series 6 - Dam Control

The Energy Act empowers the Division of Oil and Gas to establish regulatory requirements with respect to the Dam Control Act, W.Va. Code §§20-5D-1 through 14 (1985 Repl. Vol.), to the extent that those requirements pertain to the exploration, development, production, storage and recovery of oil and gas and related mineral resources in this State. Accordingly, Series 6 is made expressly applicable to these activities and the regulations of the Department of Natural Resources related to dam control are superceded to the extent that they apply to these sources.

The substantive regulatory requirements which are being proposed are identical to the substantive regulations of the Department of Natural Resources relating to dam control. Certain

changes have been made to streamline the regulations and to conform the regulatory authority to that of the Division of Oil and Gas.

E. Series 7 - Solid Waste Management

The Energy Act also vests exclusive jurisdiction in the Department of Energy with respect to the regulation of the exploration, development, production, storage and recovery of oil and gas and related mineral resources in the State pursuant to the Solid Waste Management Act, W.Va. Code §§20-5F-1 through 8 (1985 Repl. Vol.).

In proposed Series 7, the applicability of the regulation is limited to those activities involving exploration, development, production, storage and recovery of oil and gas and related mineral resources in the State. To the extent that the regulations of the Department of Natural Resources relate to these activities, their rules are superceded.

The Division of Oil and Gas has proposed the establishment of a permit by rule, to the extent that a solid waste facility complies with the regulatory and permitting requirements of Series 1 of these proposed regulations wherein the Division already takes into account the disposal of solid waste. In those cases in which a facility would not be subject to the permitting requirements of Series 1, the proposed regulations call for a specific permit to be issued by the Division upon application and in accordance with such reasonable terms and conditions as may be prescribed by the Director of the Division. In issuing the

permit, the Division would also be bound to assure compliance with the requirements of the State Solid Waste Management Act.

F. Series 8 - Hazardous Waste Management

Under the terms of the Energy Act, the Department of Energy is authorized to exercise all power and duties vested in the Administrator of the Office of Oil and Gas and the Shallow Gas Well Review Board pursuant to W.Va. Code §20-5E-7(h). That section reads, in pertinent part, as follows:

(h) To the extent that this article relates to activities with respect to oil and gas wells, liquid injection wells and waste disposal wells now regulated by [W.Va. Code §§22B-1-1 et seq.; 22-7-1 et seq. and 22B-4-1 et seq.] the [Department of Energy] has the jurisdiction with respect to the regulation of such activities and shall promulgate such rules and regulations as may be necessary to comply with the requirements of this article
.....

The Division of Oil and Gas interprets this provision as placing on it the obligation to regulate all hazardous waste activities involving the injection of such wastes into wells to the extent that such wastes are associated with the exploration, development, production, storage and recovery of oil and gas and related mineral resources of this State. A more detailed explanation of the scope of the Department of Energy's regulatory jurisdiction can be found in Part II of this Preamble. Accordingly, Series 8 includes a permit by rule which authorizes a hazardous waste permit for facilities which receive hazardous waste exclusively from oil and gas operations where those

facilities have underground injection control permits issued by the Division and otherwise comply with the regulatory permitting requirements of Series 1 of these proposed rules. Facilities receiving hazardous waste from activities other than oil and gas operations must obtain such additional authorizations from DNR and other agencies as may be required by law.

In addition, the Division of Oil and Gas interprets the State Hazardous Waste Management Act to place on it the responsibility to regulate those waste materials that are associated with the exploration, development or production of crude oil or natural gas or geothermal energy which are currently exempt from regulation as hazardous waste pursuant to W.Va. Code 20-5E-6(a)(2)(A) (1985 Repl. Vol.). Accordingly, the Division proposes to adopt a regulation exempting such wastes from regulation as hazardous waste. These wastes will be subject only to other applicable provisions of federal or state law in lieu of their regulation as hazardous waste until such time as the United States Environmental Protection Agency completes its study of these wastes mandated pursuant to Section 8002 of RCRA and promulgates regulations with respect to such wastes and that the regulation of such waste has been authorized by an act of Congress in accordance with §3001(b)(2) of RCRA. At the time the Governor issues a proclamation finding that at least 6 months have elapsed since the satisfaction of these requirements as required by State law, the Division will undertake whatever regulatory action would be necessary to discharge its responsibilities under the State Hazardous Waste Management Act.

G. Series 9 - Hearing and Appeal Procedures

The provisions of Series 9 govern and apply to all hearings before the Division of Oil and Gas under the provisions of W.Va. Code §22B-1 and the Natural Gas Policy Act of 1978. Series 9 is a procedural rule which consolidates the hearing and appeal procedures contained in various provisions of the rules of the former Department of Mines.

H. Series 10 - Requests for Information

Series 10 of the proposed regulations is a procedural regulation setting forth the Division's policy on disclosure of information pursuant to the State Freedom of Information Act (W.Va. Code §29B-1-1 et seq. (1980 & 1985 Cum. Supp.)).

IV. Solicitation of Comments

The Division of Oil and Gas invites public participation in this rulemaking and requests comments on the proposed rules discussed in this notice. The Agency asks that comments be as specific as possible and that suggested revisions or corrections be supported by data. Comments should identify the section number of the proposed rules to which they are directed.

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

1986 AUG 11 PM 2:22
OFFICE OF THE CLERK
SECRETARY OF STATE

FILED

Title: Underground Injection Control

EXHIBIT OF CODE OF FEDERAL REGULATIONS PROVISIONS
INCORPORATED BY REFERENCE

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 2.1

Document Incorporated By Reference
40 C.F.R. §144.1(g)(1)

(1) *Specific inclusions.* The following wells are included among those types by injection activities which are covered by the UIC regulations. (This list is not intended to be exclusive but is for clarification only.)

(i) Any injection well located on a drilling platform inside the State's territorial waters. -

(ii) Any dug hole or well that is deeper than its largest surface dimension, where the principal function of the hole is emplacement of fluids.

(iii) Any septic tank or cesspool used by generators of hazardous waste, or by owners or operators of hazardous waste management facilities, to dispose of fluids containing hazardous waste.

(iv) Any septic tank, cesspool, or other well used by a multiple dwelling, community, or Regional system for the injection of wastes.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec.2.2

Document Incorporated By Reference
40 C.F.R. §144.1(g)(2)

(2) Specific exclusions. The following are not covered by these regulations:

(i) Injection wells located on a drilling platform or other site that is beyond the State's territorial waters.

(ii) Individual or single family residential waste disposal systems such as domestic cesspools or septic systems.

(iii) Non-residential cesspools, septic systems or similar waste disposal systems if such systems (A) are used solely for the disposal of sanitary waste, and (B) have the capacity to serve fewer than 20 persons a day.

(iv) Injection wells used for injection of hydrocarbons which are of pipeline quality and are gases at standard temperature and pressure for the purpose of storage.

(v) Any dug hole which is not used for emplacement of fluids underground.

§146.3 Definitions.

The following definitions apply to the underground injection control program.

Abandoned well means a well whose use has been permanently discontinued or which is in a state of disrepair such that it cannot be used for its intended purpose or for observation purposes.

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in approved States, including any approved modifications or revisions. For RCRA, application also includes the information required by the Director under §122.25 (contents of Part B of the RCRA application).

Aquifer means a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

Area of review means the area surrounding an injection well described according to the criteria set forth in §146.06 or in the case of an area permit, the project area plus a circumscribing area the width of which is either $\frac{1}{4}$ of a mile or a number calculated according to the criteria set forth in §146.06.

Casing means a pipe or tubing of appropriate material, of varying diameter and weight, lowered into a borehole during or after drilling in order to support the sides of the hole and thus prevent the walls from caving, to prevent loss of drilling mud into porous ground, or to prevent water, gas, or other fluid from entering or leaving the hole.

Catastrophic collapse means the sudden and utter failure of overlying "strata" caused by removal of underlying materials.

Cementing means the operation whereby a cement slurry is pumped into a drilled hole and/or forced behind the casing.

Confining bed means a body of impermeable or distinctly less permeable material stratigraphically adjacent to one or more aquifers.

Confining zone means a geological formation, group of formations, or part of a formation that is capable of limiting fluid movement above an injection zone.

Contaminant means any physical, chemical, biological, or radiological substance or matter in water.

Conventional mine means an open pit or underground excavation for the production of minerals.

Director means the Regional Administrator or the State Director, as the context requires, or an authorized representative. When there is no approved State program, and there is an EPA administered program, "Director" means the Regional Administrator. When there is an approved State program, "Director" normally means the State Director. In some circumstances, however, EPA retains the authority to take certain actions even where there is an approved State program. (For example, when EPA issued an NPDES permit prior to the approval of a State program, EPA may retain jurisdiction over that permit after program approval, see §123.69.) In such cases, the term "Director" means the Regional Administrator and not the State Director.

Disposal well means a well used for the disposal of waste into a subsurface stratum.

Effective date of a UIC program means the date that a State UIC program is approved or established by the Administrator.

Environmental Protection Agency ("EPA") means the United States Environmental Protection Agency.

EPA means the United States "Environmental Protection Agency."

Exempted aquifer means an aquifer or its portion that meets the criteria in the definition of "underground source of drinking water" but which has been exempted according to the procedures of §144.8(b).

Existing injection well means an "injection well" other than a "new injection well."

Experimental technology means a technology which has not been proven feasible under the conditions in which it is being tested.

Facility or activity means any "HWM facility," UIC "injection well," NPDES "point source," or State 404 dredge and fill activity, or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the RCRA, UIC, NPDES, or 404 programs.

Fault means a surface or zone of rock fracture along which there has been displacement.

Flow rate means the volume per time unit given to the flow of gases or

other fluid substance which emerges from an orifice, pump, turbine or passes along a conduit or channel.

Fluid means material or substance which flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state.

Formation means a body of rock characterized by a degree of lithologic homogeneity which is prevailing, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.

Formation fluid means "fluid" present in a "formation" under natural conditions as opposed to introduced fluids, such as drilling mud.

Generator means any person, by site location, whose act or process produces hazardous waste identified or listed in 40 CFR Part 261.

Ground water means water below the land surface in a zone of saturation.

Hazardous waste means a hazardous waste as defined in 40 CFR 261.3.

Hazardous Waste Management facility ("HWM facility") means all contiguous land, and structures, other appurtenances, and improvements on the land used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one or more landfills, surface impoundments, or combination of them).

HWM facility means "Hazardous Waste Management facility."

Injection well means a "well" into which "fluids" are being injected.

Injection zone means a geological "formation", group of formations, or part of a formation receiving fluids through a well.

Lithology means the description of rocks on the basis of their physical and chemical characteristics.

Owner or operator means the owner or operator of any facility or activity subject to regulation under the RCRA, UIC, NPDES, or 404 programs.

Packer means a device lowered into a well to produce a fluid-tight seal.

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved State" to implement the requirements of this part and Parts 124, 144, and 145.

Permit does not include RCRA interim status (§ 122.23), UIC authorization by rule (§§ 144.21 to 144.26 and 144.15), or any permit which has not yet been the subject of final agency action, such as a "draft permit" or a "proposed permit."

Plugging means the act or process of stopping the flow of water, oil or gas into or out of a formation through a borehole or well penetrating that formation.

Plugging record means a systematic listing of permanent or temporary abandonment of water, oil, gas, test, exploration and waste injection wells, and may contain a well log, description of amounts and types of plugging material used, the method employed for plugging, a description of formations which are sealed and a graphic log of the well showing formation location, formation thickness, and location of plugging structures.

Pressure means the total load or force per unit area acting on a surface.

Project means a group of wells in a single operation.

Radioactive waste means any waste which contains radioactive material in concentrations which exceed those listed in 10 CFR Part 20, Appendix B, Table II column 2.

RCRA means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (Pub. L. 94-580, as amended by Pub. L. 95-609, 42 U.S.C. 6901 et seq.).

SDWA means the Safe Drinking Water Act (Pub. L. 95-523, as amended by Pub. L. 95-190, 42 U.S.C. 300(f) et seq.).

Site means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

Sole or principal source aquifer means an aquifer which has been designated by the Administrator pursuant to section 1424 (a) or (e) of the SDWA.

State Director means the chief administrative officer of any State or interstate agency operating an approved program, or the delegated representative of the State Director. If responsibility is divided among two or more State or interstate agencies, "State Director" means the chief

administrative officer of the State or interstate agency authorized to perform the particular procedure or function to which reference is made.

Stratum (plural *strata*) means a single sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock material.

Subsidence means the lowering of the natural land surface in response to: Earth movements; lowering of fluid pressure; removal of underlying supporting material by mining or solution of solids, either artificially or from natural causes; compaction due to wetting (Hydrocompaction); oxidation of organic matter in soils; or added load on the land surface.

Surface casing means the first string of well casing to be installed in the well.

Total dissolved solids ("TDS") means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR Part 136.

UIC means the Underground Injection Control program under Part C of the Safe Drinking Water Act, including an "approved program."

Underground injection means a "well injection."

Underground source of drinking water (USDW) means an aquifer or its portion:

(1)(i) Which supplies any public water system; or

(ii) Which contains a sufficient quantity of ground water to supply a public water system; and

(A) Currently supplies drinking water for human consumption; or

(B) Contains fewer than 10,000 mg/l total dissolved solids; and

(2) Which is not an exempted aquifer.

USDW means "underground source of drinking water."

Well means a bored, drilled or driven shaft, or a dug hole, whose depth is greater than the largest surface dimension.

Well injection means the subsurface emplacement of fluids through a bored, drilled or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension.

Well plug means a watertight and gastight seal installed in a borehole or well to prevent movement of fluids.

Well stimulation means several processes used to clean the well bore, enlarge channels, and increase pore space in the interval to be injected thus making it possible for wastewater to move more readily into the formation, and includes (1) surging, (2) jetting, (3) blasting, (4) acidizing, (5) hydraulic fracturing.

Well monitoring means the measurement, by on-site instruments or laboratory methods, of the quality of water in a well.

§144.3 Definitions.

Terms not defined in this section have the meaning given by the appropriate Act. When a defined term appears in a definition, the defined term is sometimes placed within quotation marks as an aid to readers.

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in approved States, including any approved modifications or revisions.

Appropriate Act and regulations means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA); or Safe Drinking Water Act (SDWA), whichever is applicable; and applicable regulations promulgated under those statutes.

Approved State program means a State UIC program administered by the State that has been approved by EPA according to SDWA section 1422.

Aquifer means a geological "formation," group of formations, or part of a formation that is capable of yielding a

significant amount of water to a well or spring.

Area of review means the area surrounding an injection well described according to the criteria set forth in §146.06 or in the case of an area permit, the project area plus a circumscribing area the width of which is either $\frac{1}{4}$ of a mile or a number calculated according to the criteria set forth in §146.06.

Contaminant means any physical, chemical, biological, or radiological substance or matter in water.

Director means the Regional Administrator, the Administrator of EPA, or the State Director, as the context requires, or an authorized representative. When there is no approved State program, and there is an EPA administered program, "Director" means the Regional Administrator. When there is an approved State program, "Director" normally means the State Director.

In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved State program. In such cases, the term "Director" means the Regional Administrator and not the State Director.

Draft permit means a document prepared under §124.6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a "permit." A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in §124.5 are types of "draft permits." A denial of a request for modification, revocation and reissuance, or termination, as discussed in §124.5 is not a "draft permit."

Drilling mud means a heavy suspension used in drilling an "injection well," introduced down the drill pipe and through the drill bit.

Emergency permit means a UIC "permit" issued in accordance with §144.34.

Environmental Protection Agency ("EPA") means the United States Environmental Protection Agency.

EPA means the United States "Environmental Protection Agency."

Exempted aquifer means an "aquifer" or its portion that meets the crite-

ria in the definition of "underground source of drinking water" but which has been exempted according to the procedures in § 144.7.

Existing injection well means an "injection well" other than a "new injection well."

Facility or activity means any UIC "injection well," or an other facility or activity that is subject to regulation under the UIC program.

Fluid means any material or substance which flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state.

Formation means a body of consolidated or unconsolidated rock characterized by a degree of lithologic homogeneity which is prevailing, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.

Formation fluid means "fluid" present in a "formation" under natural conditions as opposed to introduced fluids, such as "drilling mud."

Generator means any person, by site location, whose act or process produces hazardous waste identified or listed in 40 CFR Part 261.

Ground water means water below the land surface in a zone of saturation.

Hazardous waste means a hazardous waste as defined in 40 CFR 261.3.

Hazardous waste management facility ("HWM facility") means all contiguous land, and structures, other appurtenances, and improvements on the land used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one or more landfills, surface impoundments, or combination of them).

HWM facility means "Hazardous Waste Management facility"

Indian lands means "Indian country" as defined in 18 U.S.C. 1151. That section defines Indian country as:

(a) All land within the limits of any Indian reservation under the jurisdiction of the United States government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;

(b) All dependent Indian communities within the borders of the United

States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a State; and

(c) All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

Injection well means a "well" into which "fluids" are being injected.

Injection zone means a geological "formation" group of formations, or part of a formation receiving fluids through a "well."

Interstate agency means an agency of two or more States established by or under an agreement or compact approved by the Congress, or any other agency of two or more States having substantial powers or duties pertaining to the control of pollution as determined and approved by the administrator under the "appropriate Act and regulations."

Major facility means any UIC "facility or activity" classified as such by the Regional Administrator, or, in the case of approved State programs, the Regional Administrator in conjunction with the State Director.

Manifest means the shipping document originated and signed by the "generator" which contains the information required by Subpart B of 40 CFR Part 262.

New injection wells means an "injection well" which began injection after a UIC program for the State applicable to the well is approved or prescribed.

Owner or operator means the owner or operator of any "facility or activity" subject to regulation under the UIC program.

Permit means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of this part, Parts 145, 146 and 124. "Permit" includes an area permit (§ 144.33) and an emergency permit (§ 144.34). Permit does not include UIC authorization by rule (§ 144.21), or any permit which has not yet been the subject of final agency action, such as a "draft permit."

Person means an individual, association, partnership, corporation, municipi-

pality, State or Federal agency, or an agent or employee thereof.

Plugging means the act or process of stopping the flow of water, oil or gas into or out of a formation through a borehole or well penetrating that formation.

Project means a group of wells in a single operation.

Radioactive Waste means any waste which contains radioactive material in concentrations which exceed those listed in 10 CFR Part 20, Appendix B, Table II, Column 2.

RCRA means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (Pub. L. 94-580, as amended by Pub. L. 95-609, Pub. L. 96-510, 42 U.S.C. 6901 *et seq.*).

Regional Administrator means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

Schedule of compliance means a schedule of remedial measures included in a "permit," including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the "appropriate Act and regulations."

SDWA means the Safe Drinking Water Act (Pub. L. 93-523, as amended by Pub. L. 96-502; 42 U.S.C. 300f *et seq.*).

Site means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Trust Territory of the Pacific Islands and the Commonwealth Northern Mariana Islands.

State Director means the chief administrative officer of any State or interstate agency operating an approved program, or delegated representative of the State Director. If responsibility is divided among two or more State or interstate agencies, "State Director" means the chief administrative officer of the State or

interstate agency authorized to perform the particular procedure or function to which reference is made.

State/EPA agreement means an agreement between the Regional Administrator and the State which coordinates EPA and State activities, responsibilities and programs.

Stratum (plural strata) means a single sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock material.

Total dissolved solids means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR Part 136.

UIC means the Underground Injection Control program under Part C of the Safe Drinking Water Act, including an "approved State program."

Underground injection means a "well injection."

Underground source of drinking water (USDW) means an aquifer or its portion:

(a)(1) Which supplies any public water system; or

(2) Which contains a sufficient quantity of ground water to supply a public water system; and

(i) Currently supplies drinking water for human consumption; or

(ii) Contains fewer than 10,000 mg/l total dissolved solids; and

(b) Which is not an exempted aquifer.

USDW means "underground source of drinking water."

Well means a bored, drilled or driven shaft, or a dug hole, whose depth is greater than the largest surface dimension.

Well injection means the subsurface emplacement of "fluids" through a bored, drilled, or driven "well;" or through a dug well, where the depth of the dug well is greater than the largest surface dimension.

§146.4 Criteria for exempted aquifers.

An aquifer or a portion thereof which meets the criteria for an "underground source of drinking water" in § 146.3 may be determined under 40 CFR 144.8 to be an "exempted aquifer" if it meets the following criteria:

(a) It does not currently serve as a source of drinking water; and

(b) It cannot now and will not in the future serve as a source of drinking water because:

(1) It is mineral, hydrocarbon or geothermal energy producing, or can be demonstrated by a permit applicant as part of a permit application for a Class II or III operation to contain minerals or hydrocarbons that considering their quantity and location are expected to be commercially producible.

(2) It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical;

(3) It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or

(4) It is located over a Class III well mining area subject to subsidence or catastrophic collapse; or

(c) The total dissolved solids content of the ground water is more than 3,000 and less than 10,000 mg/l and it is not reasonably expected to supply a public water system.

§144.6 Classification of wells.

Injection wells are classified as follows:

(a) *Class I.* (1) Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to inject hazardous waste beneath the lowermost formation containing, within one-quarter mile of the well bore, an underground source of drinking water.

(2) Other industrial and municipal disposal wells which inject fluids beneath the lowermost formation containing, within one quarter mile of the well bore, an underground source of drinking water.

(b) *Class II.* Wells which inject fluids:

(1) Which are brought to the surface in connection with conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection.

(2) For enhanced recovery of oil or natural gas; and

(3) For storage of hydrocarbons which are liquid at standard temperature and pressure.

(c) *Class III.* Wells which inject for extraction of minerals including:

(1) Mining of sulfur by the Frasch process;

(2) In situ production of uranium or other metals; this category includes only in-situ production from ore bodies which have not been conventionally mined. Solution mining of conventional mines such as stopes leaching is included in Class V.

(3) Solution mining of salts or potash.

(d) *Class IV.* (1) Wells used by generators of hazardous waste or of radioactive waste, by owners or operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites to dispose of hazardous waste or radioactive waste into a formation which within one-quarter (¼) mile of the well contains an underground source of drinking water.

(2) Wells used by generators of hazardous waste or of radioactive waste, by owners or operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites to dispose of hazardous waste or radioactive waste above a formation which within one-quarter (¼) mile of the well contains an underground source of drinking water.

(3) Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to dispose of hazardous waste, which cannot be classified under paragraph (a)(1) or (d) (1) and (2) of this section (e.g., wells used to dispose of hazardous waste into or above a formation which contains an aquifer which has been exempted pursuant to §146.04).

(e) *Class V.* Injection wells not included in Classes I, II, III, or IV.

§146.6 Area of review.

The area of review for each injection well or each field, project or area of the State shall be determined according to either paragraph (a) or (b) of this section. The Director may solicit input from the owners or operators of injection wells within the State as to which method is most appropriate for each geographic area or field.

(a) Zone of endangering influence.

(1) The zone of endangering influence shall be:

(i) In the case of application(s) for well permit(s) under § 122.38 that area the radius of which is the lateral distance in which the pressures in the injection zone may cause the migration of the injection and/or formation fluid into an underground source of drinking water; or

(ii) In the case of an application for an area permit under § 122.39, the project area plus a circumscribing area the width of which is the lateral distance from the perimeter of the project area, in which the pressures in the injection zone may cause the migration of the injection and/or formation fluid into an underground source of drinking water.

(2) Computation of the zone of endangering influence may be based upon the parameters listed below and should be calculated for an injection time period equal to the expected life of the injection well or pattern. The following modified Theis equation illustrates one form which the mathematical model may take.

$$r = \left(\frac{2.25KHt}{S10^2} \right)^{1/4}$$

where:

$$X = \frac{4\pi KH(h_0 - h_w \times S_w G_0)}{2.3Q}$$

- r=Radius of endangering influence from injection well (length)
- k=Hydraulic conductivity of the injection zone (length/time)
- H=Thickness of the injection zone (length)
- t=Time of injection (time)
- S=Storage coefficient (dimensionless)
- Q=Injection rate (volume/time)
- h_0 =Observed original hydrostatic head of injection zone (length) measured from the base of the lowermost underground source of drinking water
- h_w =Hydrostatic head of underground source of drinking water (length) measured from the base of the lowest underground source of drinking water
- $S_w G_0$ =Specific gravity of fluid in the injection zone (dimensionless)
- $\pi=3.142$ (dimensionless)

The above equation is based on the following assumptions:

(i) The injection zone is homogenous and isotropic;

(ii) The injection zone has infinite area extent;

(iii) The injection well penetrates the entire thickness of the injection zone;

(iv) The well diameter is infinitesimal compared to "r" when injection time is longer than a few minutes; and

(v) The emplacement of fluid into the injection zone creates instantaneous increase in pressure.

(b) Fixed radius. (1) In the case of application(s) for well permit(s) under § 122.38 a fixed radius around the well of not less than one-fourth (1/4) mile may be used.

(2) In the case of an application for an area permit under § 122.39 a fixed width of not less than one-fourth (1/4) mile for the circumscribing area may be used.

In determining the fixed radius, the following factors shall be taken into consideration: Chemistry of injected and formation fluids; hydrogeology; population and ground-water use and dependence; and historical practices in the area.

(c) If the area of review is determined by a mathematical model pursuant to paragraph (a) of this section, the permissible radius is the result of such calculation even if it is less than one-fourth (1/4) mile.

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Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 7

§146.7 Corrective action.

In determining the adequacy of corrective action proposed by the applicant under 40 CFR 144.55 and in determining the additional steps needed to prevent fluid movement into underground sources of drinking water, the following criteria and factors shall be considered by the Director:

- (a) Nature and volume of injected fluid;
- (b) Nature of native fluids or by-products of injection;
- (c) Potentially affected population;
- (d) Geology;
- (e) Hydrology;
- (f) History of the injection operation;
- (g) Completion and plugging records;
- (h) Abandonment procedures in effect at the time the well was abandoned; and
- (i) Hydraulic connections with underground sources of drinking water.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 8

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

§146.8 Mechanical integrity.

(a) An injection well has mechanical integrity if:

(1) There is no significant leak in the casing, tubing or packer; and

(2) There is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection well bore.

(b) One of the following methods must be used to evaluate the absence of significant leaks under paragraph (a)(1) of this section:

- (1) Monitoring of annulus pressure;
- (2) Pressure test with liquid or gas;

(c) One of the following methods must be used to determine the absence of significant fluid movement under paragraph (a)(2) of this section:

(1) The results of a temperature or noise log; or

(3) For Class III wells where the nature of the casing precludes the use of the logging techniques prescribed at paragraph (c)(1) of this section, cementing records demonstrating the presence of adequate cement to prevent such migration;

(4) For Class III wells where the Director elects to rely on cementing records to demonstrate the absence of significant fluid movement, the monitoring program prescribed by §146.33(b) shall be designed to verify the absence of significant fluid movement.

(d) The Director may allow the use of a test to demonstrate mechanical integrity other than those listed in paragraphs (b) and (c)(2) of this section with the written approval of the Administrator. To obtain approval, the Director shall submit a written request to the Administrator, which shall set forth the proposed test and all technical data supporting its use. The Administrator shall approve the request if it will reliably demonstrate the mechanical integrity of wells for which its use is proposed. Any alternate method approved by the Administrator shall be published in the FEDERAL REGISTER and may be used in all States unless its use is restricted at the time of approval by the Administrator.

(e) In conducting and evaluating the tests enumerated in this section or others to be allowed by the Director, the owner or operator and the Director shall apply methods and standards generally accepted in the industry. When the owner or operator reports the results of mechanical integrity tests to the Director, he shall include a description of the test(s) and the method(s) used. In making his/her evaluation, the Director shall review monitoring and other test data submitted since the previous evaluation.

§144.14 Requirements for wells injecting hazardous waste.

(a) *Applicability.* The regulations in this section apply to all generators of hazardous waste, and to the owners or operators of all hazardous waste management facilities, using any class of well to inject hazardous wastes accompanied by a manifest. (See also § 144.13.)

(b) *Authorization.* The owner or operator of any well that is used to inject hazardous waste required to be accompanied by a manifest or delivery document shall apply for authorization to inject as specified in § 144.31 within 6 months after the approval or promulgation of the State UIC program.

(c) *Requirements.* In addition to complying with the applicable requirements of this part and 40 CFR Part 146, the owner or operator of each facility meeting the requirements of

paragraph (b) of this section, shall comply with the following:

(1) *Notification.* The owner or operator shall comply with the notification requirements of section 3010 of Pub. L. 94-580.

(2) *Identification number.* The owner or operator shall comply with the requirements of 40 CFR 264.11.

(3) *Manifest system.* The owner or operator shall comply with the applicable recordkeeping and reporting requirements for manifested wastes in 40 CFR 264.71.

(4) *Manifest discrepancies.* The owner or operator shall comply with 40 CFR 264.72.

(5) *Operating record.* The owner or operator shall comply with 40 CFR 264.73(a), (b)(1), and (b)(2).

(6) *Annual report.* The owner or operator shall comply with 40 CFR 264.75.

(7) *Unmanifested waste report.* The owner or operator shall comply with 40 CFR 264.75.

(8) *Personnel training.* The owner or operator shall comply with the applicable personnel training requirements of 40 CFR 264.16.

(9) *Certification of closure.* When abandonment is completed, the owner or operator must submit to the Director certification by the owner or operator and certification by an independent registered professional engineer that the facility has been closed in accordance with the specifications in § 144.52(a)(6).

(d) *Additional requirements for Class IV wells.* [Reserved]

§146.10 Plugging and abandoning Class I-III wells.

(a) Prior to abandoning Class I to III wells the well shall be plugged with cement in a manner which will not allow the movement of fluids either into or between underground sources of drinking water. The Director may allow Class III wells to use other plugging materials if he is satisfied that such materials will prevent movement of fluids into or between underground sources of drinking water.

(b) Placement of the cement plugs shall be accomplished by one of the following:

(1) The Balance method;

(2) The Dump Bailer method;

(3) The Two-Plug method; or

(4) An alternative method approved by the Director, which will reliably provide a comparable level of protection to underground sources of drinking water.

(c) The well to be abandoned shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Director, prior to the placement of the cement plug(s).

(d) The plugging and abandonment plan required in 40 CFR 144.52(a)(6) and 144.51(n) shall, in the case of a Class III project which underlies or is in an aquifer which has been exempted under 40 CFR 146.04, also demonstrate adequate protection of USDWs. The Director shall prescribe aquifer cleanup and monitoring where he deems it necessary and feasible to insure adequate protection of USDWs.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 11.1

Document Incorporated By Reference
40 C.F.R. §146.11

§ 146.11 Applicability.

This subpart establishes criteria and standards for underground injection control programs to regulate Class I wells.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 11.2

Document Incorporated By Reference
40 C.F.R. §146.12

§ 146.12 Construction requirements.

(a) All Class I wells shall be sited in such a fashion that they inject into a formation which is beneath the lowermost formation containing, within one quarter mile of the well bore, an underground source of drinking water.

(b) All Class I wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water. The casing and cement used in the construction of each newly drilled well shall be designed for the life expectancy of the well. In determining and specifying casing and cementing requirements, the following factors shall be considered:

- (1) Depth to the injection zone;
- (2) Injection pressure, external pressure, internal pressure, and axial loading;
- (3) Hole size;
- (4) Size and grade of all casing strings (wall thickness, diameter, nominal weight, length, joint specification, and construction material);
- (5) Corrosiveness of injected fluid, formation fluids, and temperatures;
- (6) Lithology of injection and confining intervals; and
- (7) Type or grade of cement.

(c) All Class I injection wells, except those municipal wells injecting non-corrosive wastes, shall inject fluids through tubing with a packer set immediately above the injection zone, or tubing with an approved fluid seal as an alternative. The tubing, packer, and fluid seal shall be designed for the expected service.

(1) The use of other alternatives to a packer may be allowed with the written approval of the Director. To obtain approval, the operator shall submit a written request to the Director, which shall set forth the proposed alternative and all technical data supporting its use. The Director shall approve the request if the alternative method will reliably provide a comparable level of protection to underground sources of drinking water. The Director may approve an alternative method solely for an individual well or for general use.

(2) In determining and specifying requirements for tubing, packer, or alternatives the following factors shall be considered:

- (i) Depth of setting;
- (ii) Characteristics of injection fluid (chemical content, corrosiveness, and density);
- (iii) Injection pressure;
- (iv) Annular pressure;
- (v) Rate, temperature and volume of injected fluid; and
- (vi) Size of casing.

(d) Appropriate logs and other tests shall be conducted during the drilling and construction of new Class I wells. A descriptive report interpreting the results of such logs and tests shall be prepared by a knowledgeable log analyst and submitted to the Director. At a minimum, such logs and tests shall include:

(1) Deviation checks on all holes constructed by first drilling a pilot hole, and then enlarging the pilot hole by reaming or another method. Such checks shall be at sufficiently frequent intervals to assure that vertical avenues for fluid migration in the form of diverging holes are not created during drilling.

(2) Such other logs and tests as may be needed after taking into account the availability of similar data in the area of the drilling site, the construction plan, and the need for additional information, that may arise from time to time as the construction of the well progresses. In determining which logs and tests shall be required, the following logs shall be considered for use in the following situations:

(i) For surface casing intended to protect underground sources of drinking water:

(A) Resistivity, spontaneous potential, and caliper logs before the casing is installed; and

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

(ii) For intermediate and long strings of casing intended to facilitate injection:

(A) Resistivity, spontaneous potential, porosity, and gamma ray logs before the casing is installed;

(B) Fracture finder logs; and

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

(e) At a minimum, the following information concerning the injection formation shall be determined or calculated for new Class I wells:

(1) Fluid pressure;

(2) Temperature;

(3) Fracture pressure;

(4) Other physical and chemical characteristics of the injection matrix; and

(5) Physical and chemical characteristics of the formation fluids.

§146.13 Operating, monitoring and reporting requirements.

(a) *Operating requirements.* Operating requirements shall, at a minimum, specify that:

(1) Except during stimulation injection pressure at the wellhead shall not exceed a maximum which shall be calculated so as to assure that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the injection zone. In no case shall injection pressure initiate fractures in the confining zone or cause the movement of injection or formation fluids into an underground source of drinking water.

(2) Injection between the outermost casing protecting underground sources of drinking water and the well bore is prohibited.

(3) Unless an alternative to a packer has been approved under §146.12(c), the annulus between the tubing and the long string of casings shall be filled with a fluid approved by the Director and a pressure, also approved by the Director, shall be maintained on the annulus.

(b) *Monitoring requirements.* Monitoring requirements shall, at a minimum, include:

(1) The analysis of the injected fluids with sufficient frequency to yield representative data of their characteristics;

(2) Installation and use of continuous recording devices to monitor injection pressure, flow rate and volume, and the pressure on the annulus between the tubing and the long string of casing;

(3) A demonstration of mechanical integrity pursuant to §146.8 at least once every five years during the life of the well; and

(4) The type, number and location of wells within the area of review to be used to monitor any migration of fluids into and pressure in the underground sources of drinking water, the parameters to be measured and the frequency of monitoring.

(c) *Reporting requirements.* Reporting requirements shall, at a minimum, include:

(1) Quarterly reports to the Director on:

(i) The physical, chemical and other relevant characteristics of injection fluids;

(ii) Monthly average, maximum and minimum values for injection pressure, flow rate and volume, and annular pressure; and

(iii) The results of monitoring prescribed under paragraph (b)(4) of this section.

(2) Reporting the results, with the first quarterly report after the completion, of:

(i) Periodic tests of mechanical integrity;

(ii) Any other test of the injection well conducted by the permittee if required by the Director; and

(iii) Any well work over.

§146.14 Information to be considered by the Director.

This section sets forth the information which must be considered by the Director in authorizing Class I wells. For an existing or converted new Class I well the Director may rely on the existing permit file for those items of information listed below which are current and accurate in the file. For a newly drilled Class I well, the Director shall require the submission of all the information listed below. For both existing and new Class I wells certain maps, cross-sections, tabulations of wells within the area of review and other data may be included in the application by reference provided they are current, readily available to the Director (for example, in the permitting agency's files) and sufficiently identified to be retrieved. In cases where EPA issues the permit all the information in this section must be submitted to the Administrator.

(a) Prior to the issuance of a permit for an existing Class I well to operate or the construction or conversion of a new Class I well the Director shall consider the following:

(1) Information required in 40 CFR 144.31 and 144.31(g);

(2) A map showing the injection well(s) for which a permit is sought and the applicable area of review. Within the area of review, the map must show the number, or name, and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, mines (surface and subsurface), quarries, water wells and other pertinent surface features including residences and roads. The map should also show faults, if known or suspected. Only information of public record is required to be included on this map;

(3) A tabulation of data on all wells within the area of review which penetrate into the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of plugging and/or completion, and any additional information the Director may require;

(4) Maps and cross sections indicating the general vertical and lateral limits of all underground sources of drinking water within the area of review, their position relative to the injection formation and the direction of water movement, where known, in each underground source of drinking water which may be affected by the proposed injection;

(5) Maps and cross sections detailing the geologic structure of the local area;

(6) Generalized maps and cross sections illustrating the regional geologic setting;

(7) Proposed operating data:

(i) Average and maximum daily rate and volume of the fluid to be injected;

(ii) Average and maximum injection pressure; and

(iii) Source and an analysis of the chemical, physical, radiological and biological characteristics of injection fluids;

(8) Proposed formation testing program to obtain an analysis of the chemical, physical and radiological characteristics of and other information on the receiving formation;

(9) Proposed stimulation program;

(10) Proposed injection procedure;

(11) Schematic or other appropriate drawings of the surface and subsurface construction details of the well.

(12) Contingency plans to cope with all shut-ins or well failures so as to prevent migration of fluids into any underground source of drinking water;

(13) Plans (including maps) for meeting the monitoring requirements in § 146.13(b);

(14) For wells within the area of review which penetrate the injection zone but are not properly completed or plugged, the corrective action proposed to be taken under 40 CFR 144.55;

(15) Construction procedures including a cementing and casing program, logging procedures, deviation checks, and a drilling, testing, and coring program; and

(16) A certificate that the applicant has assured, through a performance bond or other appropriate means, the resources necessary to close, plug or abandon the well as required by 40 CFR 122.42(g).

(b) Prior to granting approval for the operation of a Class I well the Director shall consider the following information:

(1) All available logging and testing program data on the well;

(2) A demonstration of mechanical integrity pursuant to § 146.8;

(3) The anticipated maximum pressure and flow rate at which the permittee will operate;

(4) The results of the formation testing program;

(5) The actual injection procedure;

(6) The compatibility of injected waste with fluids in the injection zone and minerals in both the injection zone and the confining zone; and

(7) The status of corrective action on defective wells in the area of review.

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Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 11.4

Document Incorporated By Reference
40 C.F.R. §146.14

(c) Prior to granting approval for the plugging and abandonment of a Class I well the Director shall consider the following information:

- (1) The type and number of plugs to be used;
- (2) The placement of each plug including the elevation of the top and bottom;
- (3) The type and grade and quantity of cement to be used;
- (4) The method for placement of the plugs; and
- (5) The procedure to be used to meet the requirements of § 146.10(c).

§146.15 Mid-course evaluation requirements.

In compliance with 40 CFR 122.18(c)(4)(c)(ii) the data to be submitted on each Class I permit at six month intervals during the first two years of operation of the State program shall at a minimum include the following:

- (a) The data required in § 146.14(a)(1);
- (b) The data required in § 146.14(a)(3) including, under location, the distance and direction from the injection well;
- (c) The depth to the top and bottom of any USDW;
- (d) The distance to the nearest down-gradient water supply well;
- (e) A description of the geology and hydrology of the area;
- (f) The construction characteristics of the well;
- (g) The corrective action proposed as well as that performed;
- (h) The type and results of all mechanical integrity tests reported to the Director; and
- (i) Any reporting to the Director under § 144.51(d)(6).

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 13.1

Document Incorporated By Reference
40 C.F.R. §146.31

§ 146.31 Applicability.

This subpart establishes criteria and standards for underground injection control programs to regulate Class III wells.

§ 146.32 Construction requirements.

(a) All new Class III wells shall be cased and cemented to prevent the migration of fluids into or between underground sources of drinking water. The Director may waive the cementing requirement for new wells in existing projects or portions of existing projects where he has substantial evidence that no contamination of underground sources of drinking water would result. The casing and cement used in the construction of each newly drilled well shall be designed for the life expectancy of the well. In determining and specifying casing and cementing requirements, the following factors shall be considered:

- (1) Depth to the injection zone;
- (2) Injection pressure, external pressure, internal pressure, axial loading, etc.;
- (3) Hole size;
- (4) Size and grade of all casing strings (wall thickness, diameter, nominal weight, length, joint specification, and construction material);
- (5) Corrosiveness of injected fluids and formation fluids;
- (6) Lithology of injection and confining zones; and
- (7) Type and grade of cement.

(b) Appropriate logs and other tests shall be conducted during the drilling and construction of new Class III wells. A descriptive report interpreting the results of such logs and tests shall be prepared by a knowledgeable log analyst and submitted to the Director. The logs and tests appropriate to each type of Class III well shall be determined based on the intended function, depth, construction and other characteristics of the well, availability of similar data in the area of the drilling site and the need for additional information that may arise from time to time as the construction of the well progresses. Deviation checks shall be conducted on all holes where pilot holes and reaming are used, unless the hole will be cased and cemented by circulating cement to the surface. Where deviation checks are necessary they shall be conducted at sufficiently frequent intervals to assure that vertical avenues for fluid migration in the form of diverging holes are not created during drilling.

(c) Where the injection zone is a formation which is naturally water-bearing the following information concerning the injection zone shall be determined or calculated for new Class III wells or projects:

- (1) Fluid pressure;
- (2) Fracture pressure; and
- (3) Physical and chemical characteristics of the formation fluids.

(d) Where the injection formation is not a water-bearing formation, the information in paragraph (c)(2) of this section must be submitted.

(e) Where injection is into a formation which contains water with less than 10,000 mg/l TDS monitoring wells shall be completed into the injection zone and into any underground sources of drinking water above the injection zone which could be affected by the mining operation. These wells shall be located in such a fashion as to

detect any excursion of injection fluids, process by-products, or formation fluids outside the mining area or zone. If the operation may be affected by subsidence or catastrophic collapse the monitoring wells shall be located so that they will not be physically affected.

(f) Where injection is into a formation which does not contain water with less than 10,000 mg/l TDS, no monitoring wells are necessary in the injection stratum.

(g) Where the injection wells penetrate an USDW in an area subject to subsidence or catastrophic collapse an adequate number of monitoring wells shall be completed into the USDW to detect any movement of injected fluids, process by-products or formation fluids into the USDW. The monitoring wells shall be located outside the physical influence of the subsidence or catastrophic collapse.

(h) In determining the number, location, construction and frequency of monitoring of the monitoring wells the following criteria shall be considered:

- (1) The population relying on the USDW affected or potentially affected by the injection operation;
- (2) The proximity of the injection operation to points of withdrawal of drinking water;
- (3) The local geology and hydrology;
- (4) The operating pressures and whether a negative pressure gradient is being maintained;
- (5) The nature and volume of the injected fluid, the formation water, and the process by-products; and
- (6) The injection well density.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 13.3

Document Incorporated By Reference
40 C.F.R. §146.33

§146.33 Operating, monitoring, and reporting requirements.

(a) *Operating requirements.* Operating requirements prescribed shall, at a minimum, specify that:

(1) Except during well stimulation injection pressure at the wellhead shall be calculated so as to assure that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the injection zone. In no case,

shall injection pressure initiate fractures in the confining zone or cause the migration of injection or formation fluids into an underground source of drinking water.

(2) Injection between the outermost casing protecting underground sources of drinking water and the well bore is prohibited.

(b) *Monitoring requirements.* Monitoring requirements shall, at a minimum, specify:

(1) Monitoring of the nature of injected fluids with sufficient frequency to yield representative data on its characteristics. Whenever the injection fluid is modified to the extent that the analysis required by §146.34(a)(7)(iii) is incorrect or incomplete, a new analysis as required by §146.34(a)(7)(iii) shall be provided to the Director.

(2) Monitoring of injection pressure and either flow rate or volume semi-monthly, or metering and daily recording of injected and produced fluid volumes as appropriate.

(3) Demonstration of mechanical integrity pursuant to §146.08 at least once every five years during the life of the well for salt solution mining.

(4) Monitoring of the fluid level in the injection zone semi-monthly, where appropriate and monitoring of the parameters chosen to measure water quality in the monitoring wells required by §146.32(e), semi-monthly.

(5) Quarterly monitoring of wells required by §146.32(g).

(6) All Class III wells may be monitored on a field or project basis rather than an individual well basis by manifold monitoring. Manifold monitoring may be used in cases of facilities consisting of more than one injection well, operating with a common manifold. Separate monitoring systems for each well are not required provided the owner/operator demonstrates that manifold monitoring is comparable to individual well monitoring.

(c) *Reporting requirements.* Reporting requirements shall, at a minimum, include:

(1) Quarterly reporting to the Director on required monitoring;

(2) Results of mechanical integrity and any other periodic test required by the Director reported with the first

regular quarterly report after the completion of the test; and

(3) Monitoring may be reported on a project or field basis rather than individual well basis where manifold monitoring is used.

§146.34 Information to be considered by the Director.

This section sets forth the information which must be considered by the Director in authorizing Class III wells. Certain maps, cross sections, tabulations of wells within the area of review, and other data may be included in the application by reference provided they are current, readily available to the Director (for example, in the permitting agency's files) and sufficiently identified to be retrieved. In cases where EPA issues the permit, all the information in this section must be submitted to the Administrator.

(a) Prior to the issuance of a permit for an existing Class III well or area to operate or the construction of a new Class III well the Director shall consider the following:

(1) Information required in 40 CFR 144.31 and 144.31(g);

(2) A map showing the injection well or project area for which a permit is sought and the applicable area of review. Within the area of review, the map must show the number or name and location of all existing producing wells, injection wells, abandoned wells, dry holes, public water systems and water wells. The map may also show surface bodies of waters, mines (surface and subsurface) quarries and other pertinent surface features including residences and roads, and faults if known or suspected. Only information of public record and pertinent information known to the applicant is required to be included on this map.

(3) A tabulation of data reasonably available from public records or otherwise known to the applicant on wells within the area of review included on the map required under paragraph

(a)(2) of this section which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of plugging and completion, and any additional information the Director may require. In cases where the information would be repetitive and the wells are of similar age, type, and construction the Director may elect to only require data on a representative number of wells.

(4) Maps and cross sections indicating the vertical limits of all underground sources of drinking water within the area of review, their position relative to the injection formation, and the direction of water movement, where known, in every underground source of drinking water which may be affected by the proposed injection;

(5) Maps and cross sections detailing the geologic structure of the local area;

(6) Generalized map and cross sections illustrating the regional geologic setting;

(7) Proposed operating data:

(i) Average and maximum daily rate and volume of fluid to be injected;

(ii) Average and maximum injection pressure; and

(iii) Qualitative analysis and ranges in concentrations of all constituents of injected fluids. The applicant may request Federal confidentiality as specified in 40 CFR Part 2. If the information is proprietary an applicant may, in lieu of the ranges in concentrations, choose to submit maximum concentrations which shall not be exceeded. In such a case the applicant shall retain records of the undisclosed concentrations and provide them upon request to the Director as part of any enforcement investigation.

(8) Proposed formation testing program to obtain the information required by § 146.32(c).

(9) Proposed stimulation program;

(10) Proposed injection procedure;

(11) Schematic or other appropriate drawings of the surface and subsurface construction details of the well;

(12) Plans (including maps) for meeting the monitoring requirements of § 146.33(b);

(13) Expected changes in pressure, native fluid displacement, direction of movement of injection fluid;

(14) Contingency plans to cope with all shut-ins or well failures so as to prevent the migration of contaminating fluids into underground sources of drinking water;

(15) A certificate that the applicant has assured, through a performance bond, or other appropriate means, the resources necessary to close, plug, or abandon the well as required by 40 CFR 144.52(a)(7) and

(16) The corrective action proposed to be taken under 40 CFR 144.55.

(b) Prior to granting approval for the operation of a Class III well the Director shall consider the following information:

(1) All available logging and testing data on the well;

(2) A satisfactory demonstration of mechanical integrity for all new wells and for all existing salt solution wells pursuant to § 146.08;

(3) The anticipated maximum pressure and flow rate at which the permittee will operate;

(4) The results of the formation testing program;

(5) The actual injection procedures; and

(6) The status of corrective action on defective wells in the area of review.

(c) Prior to granting approval for the plugging and abandonment of a Class III well the Director shall consider the following information:

(1) The type and number of plugs to be used;

(2) The placement of each plug including the elevation of the top and bottom;

(3) The type, grade and quantity of cement to be used;

(4) The method of placement of the plugs, and

(5) The procedure to be used to meet the requirements of § 146.10(c).

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 13.5

Document Incorporated By Reference
40 C.F.R. §146.35

§146.35 Mid-course evaluation requirements.

In compliance with 40 CFR 144.9(b)(2) the data to be submitted on each Class III permit at six month intervals during the first two years of operation of the State program shall at a minimum include the following:

- (a) The data required in §146.14(a)(f);
- (b) The data required in §146.34(a)(3) including, under location, the distance and direction from the injection well;
- (c) The depth to the top and bottom of any USDW;
- (d) The distance to the nearest down-gradient water supply well;
- (e) A description of the geology and hydrology of the area;
- (f) The construction characteristics of the well;
- (g) The type and results of all mechanical integrity tests reported to the Director during the first two years of the program; and
- (h) Any reporting to the Director under §144.51(i)(6).

§144.13 Prohibition of Class IV wells.

(a) The following are prohibited, except as provided in paragraph (c) of this section:

(1) The construction of any Class IV well.

(2) The operation or maintenance of any Class IV well not in operation prior to July 18, 1980.

(3) The operation or maintenance of any Class IV well that was in operation prior to July 18, 1980, after six months following the effective date of a UIC program approved or promulgated for the state.

(4) Any increase in the amount of hazardous waste or change in the type of hazardous waste injected into a Class IV well.

(b) The owner or operator of a Class IV well shall comply with the requirements of §144.14, and with the requirements of §144.23 regarding closure of Class IV wells.

(c) Wells used to inject contaminated ground water that has been treated and is being reinjected into the same formation from which it was drawn are not prohibited by this section if such injection is approved by EPA pursuant to provisions for cleanup of releases under the Comprehensive En-

vironmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9601-9657, or pursuant to requirements and provisions under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6901 through 6987.

(d) *Clarification.* The following wells are not prohibited by this action:

(1) Wells used to inject hazardous waste into aquifers or portions thereof that have been exempted pursuant to §146.4, if the exempted aquifer into which waste is injected underlies the lowermost formation containing a USDW. Such wells are Class I wells as specified in §144.6(a)(1), and the owner or operator must comply with the requirements applicable to Class I wells.

(2) Wells used to inject hazardous waste where no USDW exists within one quarter mile of the well bore in any underground formation, provided that the Director determines that such injection is into a formation sufficiently isolated to ensure that injected fluids do not migrate from the injection zone. Such wells are Class I wells as specified in §144.6(a)(1), and the owner or operator must comply with the requirements applicable to Class I wells.

§144.14 Requirements for wells injecting hazardous waste.

(a) *Applicability.* The regulations in this section apply to all generators of hazardous waste, and to the owners or operators of all hazardous waste management facilities, using any class of well to inject hazardous wastes accompanied by a manifest. (See also §144.13.)

(b) *Authorization.* The owner or operator of any well that is used to inject hazardous waste required to be accompanied by a manifest or delivery document shall apply for authorization to inject as specified in §144.31 within 6 months after the approval or promulgation of the State UIC program.

(c) *Requirements.* In addition to complying with the applicable requirements of this part and 40 CFR Part 146, the owner or operator of each facility meeting the requirements of

paragraph (b) of this section, shall comply with the following:

(1) *Notification.* The owner or operator shall comply with the notification requirements of section 3010 of Pub. L. 94-580.

(2) *Identification number.* The owner or operator shall comply with the requirements of 40 CFR 264.11.

(3) *Manifest system.* The owner or operator shall comply with the applicable recordkeeping and reporting requirements for manifested wastes in 40 CFR 264.71.

(4) *Manifest discrepancies.* The owner or operator shall comply with 40 CFR 264.72.

(5) *Operating record.* The owner or operator shall comply with 40 CFR 264.73(a), (b)(1), and (b)(2).

(6) *Annual report.* The owner or operator shall comply with 40 CFR 264.75.

(7) *Unmanifested waste report.* The owner or operator shall comply with 40 CFR 264.75.

(8) *Personnel training.* The owner or operator shall comply with the applicable personnel training requirements of 40 CFR 264.16.

(9) *Certification of closure.* When abandonment is completed, the owner or operator must submit to the Director certification by the owner or operator and certification by an independent registered professional engineer that the facility has been closed in accordance with the specifications in §144.52(a)(6).

(d) *Additional requirements for Class IV wells.* [Reserved]

§ 144.23 Class IV wells.

(a) Injection into existing Class IV wells is authorized for up to six months after approval or promulgation of the UIC Program. Such wells are subject to the requirements of § 144.13 and § 144.14(c).

(b) **Closure.** For EPA administered programs only.

(1) Prior to abandoning any Class IV well, the owner or operator shall plug or otherwise close the well in a manner acceptable to the Regional Administrator.

(2) Within 60 days after promulgation of the UIC program in the State, the owner or operator of a Class IV

well shall submit to the Regional Administrator for approval a plan for plugging or otherwise closing and abandoning the well.

(3) The owner or operator of a Class IV well must notify the Regional Administrator of intent to abandon the well at least thirty days prior to abandonment.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 15.1

Document Incorporated By Reference
40 C.F.R. §146.51

§ 146.51 Applicability.

This subpart sets forth Criteria and Standards for underground injection control programs to regulate all injection not regulated in Subparts B, C, D, and E.

(a) Generally, wells covered by this Subpart inject non-hazardous fluids into or above formations that contain underground sources of drinking water. It includes all wells listed in § 146.5(e) but is not limited to those types of injection wells.

(b) It also includes wells not covered in Class IV that inject radioactive material listed in 10 CFR Part 20, Appendix B, Table II, Column 2.

§146.52 Inventory and assessment.

(a) The owner or operator of any Class V well shall, within one year of the effective date of an underground injection control program, notify the Director of the existence of any well meeting the definitions of Class V under his control, and submit the inventory information required in 40 CFR 144.26(a).

(b) Within three (3) years of approval of the State program the Director shall complete and submit to EPA a report containing:

(1) The information on the construction features of Class V wells, and the nature and volume of the injected fluids;

(2) An assessment of the contamination potential of the Class V wells using hydrogeological data available to the State;

(3) An assessment of the available corrective alternatives where appropriate and their environmental and economic consequences; and

(4) Recommendations both for the most appropriate regulatory approaches and for remedial actions where appropriate.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 16.1

Document Incorporated By Reference
40 C.F.R. §144.11

§144.11 Prohibition of unauthorized injection.

Any underground injection, except as authorized by permit or rule issued under the UIC program, is prohibited. The construction of any well required to have a permit is prohibited until the permit has been issued.

§ 144.12 Prohibition of movement of fluid into underground sources of drinking water.

(a) No owner or operator shall construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR Part 142 or may otherwise adversely affect the health of persons. The applicant for a permit shall have the burden of showing that the requirements of this paragraph are met.

(b) For Class I, II, and III wells, if any water quality monitoring of an underground source of drinking water indicates the movement of any contaminant into the underground source of drinking water, except as authorized under Part 146, the Director shall prescribe such additional requirements for construction, corrective action, operation, monitoring, or reporting (including closure of the injection well) as are necessary to prevent such movement. In the case of wells authorized by permit, these additional requirements shall be imposed by modifying the permit in accordance with § 144.39, or the permit may be terminated under § 144.40 if cause exists, or appropriate enforcement action may be taken if the permit has been violated. In the case of wells authorized by rule, see §§ 144.21 through 24.

(c) For Class V wells, if at any time the Director learns that a Class V well may cause a violation of primary

drinking water regulations under 40 CFR Part 142, he or she shall:

(1) Require the injector to obtain an individual permit;

(2) Order the injector to take such actions (including where required closure of the injection well) as may be necessary to prevent the violation; or

(3) Take enforcement action.

(d) Whenever the Director learns that a Class V well may be otherwise adversely affecting the health of persons, he or she may prescribe such actions as may be necessary to prevent the adverse effect, including any action authorized under paragraph (c) of this section.

(e) Notwithstanding any other provision of this section, the Director may take emergency action upon receipt of information that a contaminant which is present in or is likely to enter a public water system may present an imminent and substantial endangerment to the health of persons.

**Subpart C—Authorization of
Underground Injection by Rule**

§ 144.21 Existing Class I, II (except enhanced recovery and hydrocarbon storage) and III wells.

Injection into existing Class I, II (except existing enhanced recovery and hydrocarbon storage), and III wells is authorized.

(a) *Duration.* The authorization under this section expires:

(1) Upon the effective date of the permit or permit denial, if a permit application has been filed in a timely manner as specified in § 144.31(c)(1);

(2) If a permit application has not been filed in a timely manner as specified in § 144.31(c)(1); or

(3)(i) For Class I and III wells:

(A) In approved State programs, five years after approval or promulgation of the UIC program unless a complete permit application is pending; or

(B) In EPA administered programs, one year after promulgation of the UIC program unless a complete permit application is pending.

(ii) For Class II wells except enhanced recovery and hydrocarbon storage, five years after approval or promulgation of the UIC program

unless a complete permit application is pending.

(b) *Class II and III wells in existing fields or projects.* Notwithstanding the prohibition in § 144.11, this section authorizes Class II and Class III wells or projects in existing fields or projects to continue normal operations until permitted, including construction, operation, and plugging and abandonment of wells as part of the operation, provided the owner or operator maintains compliance with all applicable requirements.

(c) *Requirements.* The owner or operator of a well authorized under this section shall comply with the applicable requirements of § 144.28 and Part 147 of this chapter no later than one year after authorization.

§ 144.22 Existing Class II enhanced recovery and hydrocarbon storage wells.

(a) Injection into existing Class II enhanced recovery and hydrocarbon storage wells is authorized for the life of the well or project.

(b) *Requirements.* The owner or operator of a well authorized under this section shall comply with the applicable requirements of § 144.28 and Part 147 of this chapter. Such owner or operator shall comply with the casing and cementing requirements no later than 3 years and other requirements no later than 1 year after authorization.

§ 144.23 Class IV wells.

(a) Injection into existing Class IV wells is authorized for up to six months after approval or promulgation of the UIC Program. Such wells are subject to the requirements of § 144.13 and § 144.14(c).

(b) *Closure.* For EPA administered programs only.

(1) Prior to abandoning any Class IV well, the owner or operator shall plug or otherwise close the well in a manner acceptable to the Regional Administrator.

(2) Within 60 days after promulgation of the UIC program in the State, the owner or operator of a Class IV

well shall submit to the Regional Administrator for approval a plan for plugging or otherwise closing and abandoning the well.

(3) The owner or operator of a Class IV well must notify the Regional Administrator of intent to abandon the well at least thirty days prior to abandonment.

§ 144.24 Class V wells.

Injection into Class V wells is authorized until further requirements under future regulations become applicable.

§ 144.25 Requiring a permit.

(a) The Director may require any Class I, II, III, or V injection well authorized by a rule to apply for and obtain an individual or area UIC permit. Cases where individual or area UIC permits may be required include:

(1) The injection well is not in compliance with any requirement of the rule;

NOTE: Any underground injection which violates any authorization by rule is subject to appropriate enforcement action.

(2) The injection well is not or no longer is within the category of wells and types of well operations authorized in the rule;

(3) The protection of USDWs requires that the injection operation be regulated by requirements, such as for corrective action, monitoring and reporting, or operation, which are not contained in the rule.

(4) When the injection well is a Class I, II (except existing enhanced recovery and hydrocarbon storage) or III well, in accordance with a schedule established by the Director pursuant to § 144.31(c).

(b) For EPA administered programs, the Regional Administrator may require an owner or operator authorized by a rule to apply for an individual or area UIC permit under this paragraph only if the owner or operator has been notified in writing that a permit application is required. The injection activities are no longer authorized by rule upon the effective date of a permit or a permit denial, or upon failure by the owner or operator to submit an appli-

cation in a timely manner as specified in the notice. The notice shall include: a brief statement of the reasons for requiring a permit; an application form; a statement setting a time for the owner or operator to file the application; and a statement of the consequences of denial or issuance of the permit, or failure to submit an application, as described in this paragraph.

(c) Any owner or operator authorized by a rule may request to be excluded from the coverage of the rules by applying for an individual or area UIC permit. The owner or operator shall submit an application under § 144.31 with reasons supporting the request, to the Director. The Director may grant any such requests.

§ 144.26 Inventory requirements.

Owners or operators of all injection wells authorized by rule shall submit inventory information to the Director. Any authorization under this subpart automatically terminates for any owner or operator who fails to comply within the time specified in paragraph (c) of this section.

(a) *Contents.* As part of the inventory, the Director shall require and the owner/operator shall provide at least the following information:

- (1) Facility name and location;
- (2) Name and address of legal contact;
- (3) Ownership of facility;
- (4) Nature and type of injection wells; and
- (5) Operating status of injection wells.

NOTE: This information is requested on national form "Inventory of Injection Wells," OMB No. 158-R0170.

(b) *Additional contents.* For EPA administered programs only, the owner or operator of a well listed in paragraph (b)(1) of this section shall provide the information listed in paragraph (b)(2) of this section.

(1) This section applies to the following wells:

- (i) Class II enhanced recovery wells;
- (ii) Class IV wells;
- (iii) The following Class V wells:

(A) Sand or other backfill wells [§ 146.5(e)(8)];

(B) Radioactive waste disposal wells [§ 146.5(e)(11)];

(C) Geothermal energy recovery wells [§ 146.5(e)(12)];

(D) Brine return flow wells [§ 146.5(e)(14)];

(E) Wells used in experimental technologies [§ 146.5(e)(15)];

(F) Municipal and industrial disposal wells other than Class I; and

(G) Any other Class V wells at the discretion of the Regional Administrator.

(2) The owner or operator of a well listed in paragraph (b)(1) shall provide a listing of all wells owned or operated setting forth the following information for each well. (A single description of wells at a single facility with substantially the same characteristics is acceptable).

(i) For Class II only, the field name(s);

(ii) Location of each well or project given by Township, Range, Section, and Quarter-Section, or by latitude and longitude to the nearest second, according to the conventional practice in the State;

(iii) Date of completion of each well;

(iv) Identification and depth of the formation(s) into which each well is injecting;

(v) Total depth of each well;

(vi) Casing and cementing record, tubing size, and depth of packer;

(vii) Nature of the injected fluids;

(viii) Average and maximum injection pressure at the wellhead;

(ix) Average and maximum injection rate; and

(x) Date of the last mechanical integrity test, if any.

(c) Notice. Upon approval of the UIC Program in a State, the Director shall notify owners or operators of injection wells of their duty to submit inventory information. The method of notification selected by the Director must assure that the owners or operators will be made aware of the inventory requirement.

(d) Deadlines. (1) The owner or operator of an injection well shall submit inventory information no later than one year after the date of approval or effective date of the UIC program for

the State. The Director need not require inventory information from any facility with interim status under RCRA.

(2) For EPA administered programs the information need not be submitted if a complete permit application is submitted within one year of the effective date of the UIC program. The owner or operator of Class IV well shall submit inventory information no later than 60 days after the effective date of the program.

[48 FR 14189, Apr. 1, 1983, as amended at 49 FR 20182, May 11, 1984]

§ 144.27 Requiring other information.

(a) For EPA administered programs only, in addition to the inventory requirements of § 144.26, the Regional Administrator may require the owner or operator of any well authorized by rule under this subpart to submit information as deemed necessary by the Regional Administrator to determine whether a well may be endangering an underground source of drinking water in violation of § 144.12 of this part.

(b) Such information requirements may include, but are not limited to:

(1) Performance of ground-water monitoring and the periodic submission of reports of such monitoring;

(2) An analysis of injected fluids, including periodic submission of such analyses; and

(3) A description of the geologic strata through and into which injection is taking place.

(c) Any request for information under this section shall be made in writing, and include a brief statement of the reasons for requiring the information. An owner or operator shall submit the information within the time period(s) provided in the notice.

Any authorization by rule under this subpart automatically terminates for any owner or operator who fails to comply with a request for information under this section.

[49 FR 20182, May 11, 1984]

§ 144.28 Requirements for Class I, II, and III wells authorized by rule.

The following requirements apply to the owner or operator of a Class I, II,

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 16.3

Document Incorporated By Reference
40 C.F.R. Part 144 Subpart C

and III wells authorized by rule, as provided by §§ 144.21(c) and 144.22(b).

(a) The owner or operator shall comply with all applicable requirements of this subpart and Subpart B of this part. Any noncompliance with these requirements constitutes a violation of the Safe Drinking Water Act and is grounds for enforcement action, except that the owner or operator need not comply with these requirements to the extent and for the duration such noncompliance is authorized by an emergency permit under § 144.34.

(b) *Twenty-four hour reporting.* The owner or operator shall report any noncompliance which may endanger health or the environment, including:

(1) Any monitoring or other information which indicates that any contaminant may cause an endangerment to a USDW; or

(2) Any noncompliance or malfunction of the injection system which may cause fluid migration into or between USDWs.

Any information shall be provided orally within 24 hours from the time the owner or operator becomes aware of the circumstances. A written submission shall also be provided within five days of the time the owner or operator becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

(c) *Plugging and abandonment plan.*

(1) The owner or operator shall prepare, maintain, and comply with a plan for plugging and abandonment of the well or project that meets the requirements of § 146.10 of this chapter and is acceptable to the Director. For purposes of this paragraph, temporary intermittent cessation of injection operations is not abandonment.

(2) For EPA administered programs:

(i) The owner or operator shall submit the plan, on a form provided by the Regional Administrator, no

later than one year after the effective date of the UIC program in the state.

(ii) The owner or operator shall submit any proposed significant revision to the method of plugging reflected in the plan no later than the notice of plugging required by § 144.28(j)(2) (i.e., 45 days prior to plugging unless shorter notice is approved).

(iii) The plan shall include the following information:

(A) The nature and quantity and material to be used in plugging;

(B) The location and extent (by depth) of the plugs;

(C) Any proposed test or measurement to be made;

(D) The amount, size, and location (by depth) of casing to be left in the well;

(E) The method and location where casing is to be parted; and

(G) The estimated cost of plugging the well.

(iv) After a cessation of operations of two years the owner or operator shall plug and abandon the well in accordance with the plan unless he:

(A) Provides notice to the Regional Administrator;

(B) Describe actions or procedures, satisfactory to the Regional Administrator, that the owner or operator will take to ensure that the well will not endanger USDWs during the period of temporary abandonment. These actions and procedures shall include compliance with the technical requirements applicable to active injection wells unless waived by the Regional Administrator.

(v) The owner or operator of any well that has been temporarily abandoned [ceased operations for more than two years and has met the requirements of paragraphs (c)(2) (A) and (B) of this section] shall notify the Regional Administrator prior to resuming operation of the well.

(d) *Financial responsibility.* (1) The owner or operator of a Class I, II, or III well is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director. The owner or operator shall show evidence of such financial responsibility to the Director by the submission of a

surety bond, or other adequate assurance, such as a financial statement.

(2) For EPA administered programs the owner or operator shall submit such evidence no later than one year after the effective date of the UIC program in the State.

(3) For EPA administered programs the Regional Administrator may require the owner or operator to submit a revised demonstration of financial responsibility if the Regional Administrator has reason to believe that the original demonstration is no longer adequate to cover the cost of closing, plugging and abandoning the well.

(4) For EPA administered programs the owner or operator of a well injecting hazardous waste must comply with the financial responsibility requirements of Subpart F of this part.

(e) *Casing and cementing requirements.* For enhanced recovery and hydrocarbon storage wells:

(1) The owner or operator shall case and cement the well to prevent movement of fluids into or between underground sources of drinking water. In determining and specifying casing and cementing requirements, the following factors shall be considered:

(i) Depth to the injection zone;

(ii) Estimated maximum and average injection pressures.

(2) In addition, in determining and specifying casing and cementing requirements the Director may consider information on:

(i) Nature of formation fluids;

(ii) Lithology of injection and confining zones;

(iii) External pressure, internal pressure, and axial loading;

(iv) Hole size;

(v) Size and grade of all casing strings; and

(vi) Class of cement.

(3) The requirements in paragraphs (e) (1) and (2) of this section need not apply if:

(i) Regulatory controls for casing and cementing existed at the time of drilling of the well and the well is in compliance with those controls; and

(ii) Well injection will not result in the movement of fluids into an underground source of drinking water so as

to create a significant risk to the health of persons.

(4) When a State did not have regulatory controls for casing and cementing prior to the time of the submission of the State program to the Administrator, the Director need not apply the casing and cementing requirements in paragraph (e)(1) of this section if he submits as a part of his application for primacy, an appropriate plan for casing and cementing of existing, newly converted, and newly drilled wells in existing fields, and the Administrator approves the plan.

(f) *Operating requirements.* (1) Injection between the outermost casing protecting underground sources of drinking water and the well bore is prohibited.

(2) For Class I wells, unless an alternative to a packer has been approved under § 146.12(c) of this chapter, the owner or operator shall fill the annulus between the tubing and the long string of casings with a fluid approved by the Director and maintain a pressure, also approved by the Director, on the annulus. For EPA administered programs, the owner or operator of a Class I well completed with tubing and packer shall fill the annulus between tubing and casing with a noncorrosive fluid and maintain a positive pressure on the annulus. For other Class I wells, the owner or operator shall insure that the alternative completion method will reliably provide a comparable level of protection to underground sources of drinking water.

(3) Injection pressure.

(i) For Class I and III wells:

(A) Except during stimulation, the owner or operator shall not exceed an injection pressure at the wellhead which shall be calculated so as to assure that the pressure during injection does not initiate new fractures or propagate existing fractures in the injection zone; and

(B) The owner or operator shall not inject at a pressure which will initiate fractures in the confining zone or cause the movement of injection or formation fluids into an underground source of drinking water.

(ii) For Class II wells:

(A) The owner or operator shall not exceed a maximum injection pressure

at the wellhead which shall be calculated so as to assure that the pressure during injection does not initiate new fractures of propagate existing fractures in the confining zone adjacent to the USDWs; and

(B) The owner or operator shall not inject at a pressure which will cause the movement of injection or formation fluids into an underground source of drinking water.

(g) *Monitoring requirements.* The owner or operator shall perform the monitoring as described in this paragraph. For EPA administered programs, monitoring of the nature of the injected fluids shall comply with applicable analytical methods cited and described in Table I of 40 CFR 136.3 or in Appendix III of 40 CFR Part 261 or by other methods that have been approved by the Regional Administrator.

(1) The owner or operator of a Class I well shall:

(i) Analyze the nature of the injected fluids with sufficient frequency to yield data representative of their characteristics;

(ii) Install and use continuous recording devices to monitor injection pressure, flow rate and volume, and the pressure on the annulus between the tubing and the long string of casing;

(iii) Install and use monitoring wells within the area of review if required by the Director, to monitor any migration of fluids into and pressure in the underground sources of drinking water. The type, number and location of the wells, the parameters to be measured, and the frequency of monitoring must be approved by the Director.

(2) For Class II wells:

(i) The owner or operator shall monitor the nature of the injected fluids with sufficient frequency to yield data representative of their characteristics. For EPA administered programs, this frequency shall be at least once within the first year of the authorization and thereafter when changes are made to the fluid.

(ii) The owner or operator shall observe the injection pressure, flow rate, and cumulative volume at least with the following frequencies:

(A) Weekly for produced fluid disposal operations;

(B) Monthly for enhanced recovery operations;

(C) Daily during the injection of liquid hydrocarbons and injection for withdrawal of stored hydrocarbons; and

(D) Daily during the injection phase of cyclic steam operations.

(iii) The owner or operator shall record one observation of injection pressure, flow rate and cumulative volume at reasonable intervals no greater than thirty days.

(iv) For enhanced recovery and hydrocarbon storage wells:

(A) The owner or operator shall demonstrate mechanical integrity pursuant to § 146.8 of this chapter at least once every five years during the life of the injection well.

(B) For EPA administered programs, the Regional Administrator by written notice may require the owner or operator to comply with a schedule describing when such demonstrations shall be made.

(C) For EPA administered programs, the owner or operator of any well required to be tested for mechanical integrity shall notify the Regional Administrator at least 30 days prior to any required mechanical integrity test. The Regional Administrator may allow a shorter notification period if it would be sufficient to enable EPA to witness the mechanical integrity testing if it chose. Notification may be in the form of a yearly or quarterly schedule of planned mechanical integrity tests, or it may be on an individual basis.

(v) The owner or operator of a hydrocarbon storage or enhanced recovery wells may monitor them by manifold monitoring on a field or project basis rather than on an individual well basis if such facilities consist of more than one injection well, operate with a common manifold, and provided the owner or operator demonstrates to the Director that manifold monitoring is comparable to individual well monitoring.

(3)(i) For Class III wells the owner or operator shall provide to the Director a qualitative analysis and ranges in concentrations of all constituents of

injected fluids at least once within the first year of authorization and thereafter whenever the injection fluid is modified to the extent that the initial data are incorrect or incomplete. The owner or operator may request Federal confidentiality as specified in 40 CFR Part 2. If the information is proprietary the owner or operator may in lieu of the ranges in concentrations choose to submit maximum concentrations which shall not be exceeded. In such a case the owner or operator shall retain records of the undisclosed concentrations and provide them upon request to the Regional Administrator as part of any enforcement investigation; and

(ii) Monitor injection pressure and either flow rate or volume semi-monthly, or meter and record daily injected and produced fluid volumes as appropriate;

(iii) Monitor the fluid level in the injection zone semi-monthly, where appropriate;

(iv) All Class III wells may be monitored on a field or project basis rather than an individual well basis by manifold monitoring. Manifold monitoring may be used in cases of facilities consisting of more than one injection well, operating with a common manifold. Separate monitoring systems for each well are not required provided the owner or operator demonstrates to the Director that manifold monitoring is comparable to individual well monitoring.

(h) *Reporting requirements.* The owner or operator shall submit reports to the Director as follows:

(1) For Class I wells, quarterly reports on:

(i) The physical, chemical, and other relevant characteristics of the injection fluids;

(ii) Monthly average, maximum, and minimum values for injection pressure, flow rate and volume, and annular pressure;

(iii) The results from ground-water monitoring wells prescribed in paragraph (g)(1)(iii) of this section;

(iv) The results of any test of the injection well conducted by the owner or operator during the reported quarter if required by the Director; and

(v) Any well work over performed during the reported quarter.

(2) For Class II wells:

(i) An annual report to the Director summarizing the results of all monitoring, as required in paragraph (g)(2) of this section. Such summary shall include monthly records of injected fluids, and any major changes in characteristics or sources of injected fluids. Previously submitted information may be included by reference.

(ii) The owner or operator of hydrocarbon storage and enhanced recovery projects may report on a field or project basis rather than on an individual well basis where manifold monitoring is used.

(3) For Class III wells:

(i) Quarterly reporting on all monitoring, as required in paragraph (g)(3) of this section;

(ii) Quarterly reporting of the results of any periodic tests required by the Director that are performed during the reported quarter;

(iii) Monitoring may be reported on a project or field basis rather than an individual well basis where manifold monitoring is used.

(i) *Retention of records.* The owner or operator shall retain records of all monitoring information, including the following:

(1) Calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this section, for a period of at least three years from the date of the sample, measurement, or report. This period may be extended by request of the Director at any time; and

(2) The nature and composition of all injected fluids until three years after the completion of any plugging and abandonment procedures specified under § 144.52(l)(6). The Director may require the owner or operator to deliver the records to the Director at the conclusion of the retention period. For EPA administered programs, the owner or operator shall continue to retain the records after the three year retention period unless he delivers the records to the Regional Administrator or obtains written approval from the

Regional Administrator to discard the records.

(j) *Notice of abandonment.* (1) The owner or operator shall notify the Director, according to a time period required by the Director, before conversion or abandonment of the well.

(2) For EPA-administered programs, the owner or operator shall notify the Regional Administrator at least 45 days before plugging and abandonment. The Regional Administrator, at his discretion, may allow a shorter notice period.

(k) *Plugging and abandonment report.* For EPA-administered programs, within 60 days after plugging a well or at the time of the next quarterly report (whichever is less) the owner or operator shall submit a report to the Regional Administrator. If the quarterly report is due less than 15 days before completion of plugging, then the report shall be submitted within 60 days. The report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:

(1) A statement that the well was plugged in accordance with the plan previously submitted to the Regional Administrator; or

(2) Where actual plugging differed from the plan previously submitted, an updated version of the plan, on the form supplied by the Regional Administrator, specifying the different procedures used.

(l) *Change of ownership.* For EPA administered programs, the owner or operator shall notify the Regional Administrator of a transfer of ownership of the well within 30 days of such transfer.

(m) *Requirements for Class I hazardous waste wells.* The owner or operator of any Class I well injecting hazardous waste shall comply with §144.14(c). In addition, for EPA-administered programs the owner or operator shall properly dispose of, or decontaminate by removing all hazardous waste residues, all injection well equipment.

§144.31 Application for a permit; authorization by permit

(a) *Permit application.* Except for owners or operators authorized by rule, all underground injection wells are prohibited unless authorized by permit. Persons currently authorized by rule must still apply for a permit under this section unless authorization was for the life of the well or project. Rules authorizing well injections for which permit applications have been submitted shall lapse for a particular well injection or project upon the effective date of the permit or permit denial for that well injection or project. Procedures for applications, issuance and administration of emergency permits are found exclusively in §144.34.

(b) *Who applies?* When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit.

(c) *Time to apply.* Any person who performs or proposes an underground injection for which a permit is or will be required shall submit an application to the Director in accordance with the UIC program as follows:

(1) For existing wells, as expeditiously as practicable and in accordance with the schedule in any program description under §145.23(f) or (for EPA administered programs) on a schedule established by the Regional Administrator, but no later than 4 years from the approval or promulgation of the UIC program, or as required under §144.14(b) for wells injecting hazardous waste. For EPA administered programs the owner or operator of Class I or III wells shall submit a complete permit application no later than 1 year after the effective date of the program.

(2) For new injection wells, except new wells in projects authorized under §144.21(b) or covered by an existing area permit under §144.33(c), a reasonable time before construction is expected to begin.

(d) *Completeness.* The Director shall not issue a permit before receiving a complete application for a permit except for emergency permits. An ap-

plication for a permit is complete when the Director receives an application form and any supplemental information which are completed to his or her satisfaction. The completeness of any application for a permit shall be judged independently of the status of any other permit application or permit for the same facility or activity. For EPA-administered programs, an application which is reviewed under §124.3 is complete when the Director receives either a complete application or the information listed in a notice of deficiency.

(e) *Information requirements.* All applicants for permits shall provide the following information to the Director, using the application form provided by the Director.

(1) The activities conducted by the applicant which require it to obtain permits under RCRA, UIC, the National Pollution Discharge Elimination system (NPDES) program under the Clean Water Act, or the Prevention of Significant Deterioration (PSD) program under the Clean Air Act.

(2) Name, mailing address, and location of the facility for which the application is submitted.

(3) Up to four SIC codes which best reflect the principal products or services provided by the facility.

(4) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public, or other entity.

(5) Whether the facility is located on Indian lands.

(6) A listing of all permits or construction approvals received or applied for under any of the following programs:

(i) Hazardous Waste Management program under RCRA.

(ii) UIC program under SDWA.

(iii) NPDES program under CWA.

(iv) Prevention of Significant Deterioration (PSD) program under the Clean Air Act.

(v) Nonattainment program under the Clean Air Act.

(vi) National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act.

(vii) Ocean dumping permits under the Marine Protection Research and Sanctuaries Act.

(viii) Dredge and fill permits under section 404 of CWA.

(ix) Other relevant environmental permits, including State permits.

(7) A topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, and other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within a quarter mile of the facility property boundary.

(8) A brief description of the nature of the business.

(9) For EPA-administered programs, the applicant shall identify and submit on a list with the permit application the names and addresses of all owners of record of land within one-quarter mile of the facility boundary. This requirement may be waived by the Regional Administrator where the site is located in a populous area and the Regional Administrator determines that the requirement would be impracticable.

(f) *Recordkeeping.* Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under § 144.31 for a period of at least 3 years from the date the application is signed.

(g) *Contents of UIC application.*
[Reserved]

§144.33 Area permits.

(a) The Director may issue a permit on an area basis, rather than for each well individually, provided that the permit is for injection wells:

(1) Described and identified by location in permit application(s) if they are existing wells, except that the Director may accept a single description

of wells with substantially the same characteristics;

(2) Within the same well field, facility site, reservoir, project, or similar unit in the same State;

(3) Operated by a single owner or operator; and

(4) Used to inject other than hazardous waste.

(b) Area permits shall specify:

(1) The area within which underground injections are authorized, and

(2) The requirements for construction, monitoring, reporting, operation, and abandonment, for all wells authorized by the permit.

(c) The area permit may authorize the permittee to construct and operate, convert, or plug and abandon wells within the permit area provided:

(1) The permittee notifies the Director at such time as the permit requires;

(2) The additional well satisfies the criteria in paragraph (a) of this section and meets the requirements specified in the permit under paragraph (b) of this section; and

(3) The cumulative effects of drilling and operation of additional injection wells are considered by the Director during evaluation of the area permit application and are acceptable to the Director.

(d) If the Director determines that any well constructed pursuant to paragraph (c) of this section does not satisfy any of the requirements of paragraphs (c) (1) and (2) of this section the Director may modify the permit under §144.39, terminate under §144.40, or take enforcement action. If the Director determines that cumulative effects are unacceptable, the permit may be modified under §144.39.

§144.34 Emergency permits.

(a) Coverage. Notwithstanding any other provision of this part or Part 124, the Director may temporarily permit a specific underground injection if:

(1) An imminent and substantial endangerment to the health of persons will result unless a temporary emergency permit is granted; or

(2) A substantial and irretrievable loss of oil or gas resources will occur

unless a temporary emergency permit is granted to a Class II well; and

(i) Timely application for a permit could not practicably have been made; and

(ii) The injection will not result in the movement of fluids into underground sources of drinking water; or

(3) A substantial delay in production of oil or gas resources will occur unless a temporary emergency permit is granted to a new Class II well and the temporary authorization will not result in the movement of fluids into an underground source of drinking water.

(b) Requirements for issuance. (1) Any temporary permit under paragraph (a)(1) of this section shall be for no longer term than required to prevent the hazard.

(2) Any temporary permit under paragraph (a)(2) of this section shall be for no longer than 90 days, except that if a permit application has been submitted prior to the expiration of the 90-day period, the Director may extend the temporary permit until final action on the application.

(3) Any temporary permit under paragraph (a)(3) of this section shall be issued only after a complete permit application has been submitted and shall be effective until final action on the application.

(4) Notice of any temporary permit under this paragraph shall be published in accordance with §124.11 within 10 days of the issuance of the permit.

(5) The temporary permit under this section may be either oral or written. If oral, it must be followed within 5 calendar days by a written temporary emergency permit.

(6) The Director shall condition the temporary permit in any manner he or she determines is necessary to ensure that the injection will not result in the movement of fluids into an underground source of drinking water.

§144.52 Establishing permit conditions.

(a) In addition to conditions required in §144.51, the Director shall establish conditions, as required on a case-by-case basis under §144.36, (duration of permits), §144.53(a) (schedules of compliance), §144.54 (monitoring), and for EPA permits only §144.53(b) (alternate schedules of compliance) and §144.4 (considerations under Federal law). In addition, each permit shall include conditions meeting the following requirements, when applicable.

(1) *Construction requirements* as set forth in Part 146. Existing wells shall achieve compliance with such requirements according to a compliance schedule established as a permit condition. The owner or operator of a proposed new injection well shall submit plans for testing, drilling, and construction as part of the permit application. Except as authorized by an area permit, no construction may commence until a permit has been issued containing construction requirements (see §144.11). New wells shall be in compliance with these requirements prior to commencing injection operations. Changes in construction plans during construction may be approved by the Administrator as minor modifications (§144.41). No such changes may be physically incorporated into construction of the well prior to approval of the modification by the Director.

(2) *Corrective action* as set forth in §144.55 and §146.7

(3) *Operation requirements* as set forth in 40 CFR Part 146; the permit shall establish any maximum injection volumes and/or pressures necessary to assure that fractures are not initiated in the confining zone, that injected fluids do not migrate into any underground source of drinking water, that formation fluids are not displaced into any underground source of drinking water, and to assure compliance with the Part 146 operating requirements.

(4) *Requirements for wells managing hazardous waste*, as set forth in §144.14.

(5) *Monitoring and reporting requirements* as set forth in 40 CFR Part 146. The permittee shall be required to identify types of tests and methods used to generate the monitoring data. For EPA administered programs, monitoring of the nature of injected fluids shall comply with applicable analytical methods cited and described in Table I of 40 CFR 136.3 or in Appendix III of 40 CFR Part 261 or in certain circumstances by other methods that have been approved by the Regional Administrator.

(7) *Financial responsibility*. The permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director. The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, or other adequate assurance, such as financial statements or other materials acceptable to the Director. For EPA administered programs, the Regional Administrator may on a periodic basis require the holder of a lifetime permit to submit an estimate of the resources needed to plug and

abandon the well revised to reflect inflation of such costs, and a revised demonstration of financial responsibility if necessary. The owner or operator of a well injecting hazardous waste must comply with the financial responsibility requirements of Subpart F of this part.

(8) *Mechanical integrity*. A permit for any Class I, II or III well or injection project which lacks mechanical integrity shall include, and for any Class V well may include, a condition prohibiting injection operations until the permittee shows to the satisfaction of the Director under §146.08 that the well has mechanical integrity.

(9) *Additional conditions*. The Director shall impose on a case-by-case basis such additional conditions as are necessary to prevent the migration of fluids into underground sources of drinking water.

(b)(1) In addition to conditions required in all permits the Director shall establish conditions in permits as required on a case-by-case basis, to provide for and assure compliance with all applicable requirements of the SDWA and Parts 144, 145, 146 and 124.

Department of Energy
Division of Oil and Gas
Reg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 17.5

Document Incorporated By Reference
40 C.F.R. §144.52 except §144.52
(a) (6)

(2) For a State issued permit, an applicable requirement is a State statutory or regulatory requirement which takes effect prior to final administrative disposition of the permit. For a permit issued by EPA, an applicable requirement is a statutory or regulatory requirement (including any interim final regulation) which takes effect prior to the issuance of the permit (except as provided in §124.86(c) for UIC permits being processed under Subpart E or F of Part 124). Section 124.14 (reopening of comment period) provides a means for reopening EPA permit proceedings at the discretion of the Director where new requirements become effective during the permitting process and are of sufficient magnitude to make additional proceedings desirable. For State and EPA administered programs, an applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in §144.39.

(3) New or reissued permits, and to the extent allowed under §144.39

modified or revoked and reissued permits, shall incorporate each of the applicable requirements referenced in §144.52.

(c) *Incorporation.* All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements must be given in the permit.

§144.55 Corrective action.

(a) *Coverage.* Applicants for Class I, II, (other than existing), or III injection well permits shall identify the location of all known wells within the injection well's area of review which penetrate the injection zone, or in the case of Class II wells operating over the fracture pressure of the injection formation, all known wells within the area of review penetrating formations affected by the increase in pressure. For such wells which are improperly sealed, completed, or abandoned, the applicant shall also submit a plan consisting of such steps or modifications as are necessary to prevent movement of fluid into underground sources of drinking water ("corrective action"). Where the plan is adequate, 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 (based on the factors in §146.07), the Director shall require the applicant to revise the plan, prescribe a plan for corrective action as a condition of the permit under paragraph (b) of this section, or deny the application. The Director may disregard the provisions of §146.06 (Area of Review) and §146.07 (Corrective Action) when reviewing an application to permit an existing Class II well.

(b) *Requirements—(1) Existing injection wells.* Any permit issued for an

existing injection well (other than Class II) requiring corrective action shall include a compliance schedule requiring any corrective action accepted or prescribed under paragraph (a) of this section to be completed as soon as possible.

(2) *New injection wells.* No owner or operator of a new injection well may begin injection until all required corrective action has been taken.

(3) *Injection pressure limitation.* The Director may require as a permit condition that injection pressure be so limited that pressure in the injection zone does not exceed hydrostatic pressure at the site of any improperly completed or abandoned well within the area of review. This pressure limitation shall satisfy the corrective action requirement. Alternatively, such injection pressure limitation can be part of a compliance schedule and last until all other required corrective action has been taken.

(4) *Class III wells only.* When setting corrective action requirements the Director shall consider the overall effect of the project on the hydraulic gradient in potentially affected USDWs, and the corresponding changes in potentiometric surface(s) and flow direction(s) rather than the discrete effect of each well. If a decision is made that corrective action is not necessary based on the determinations above, the monitoring program required in §146.33(b) shall be designed to verify the validity of such determinations.

§144.32 Signatories to permit applications and reports.

(a) *Applications.* All permit applications, except those submitted for Class II wells (see paragraph (b) of this section), shall be signed as follows:

(1) *For a corporation:* by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secre-

tary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decisionmaking functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: EPA does not require specific assignments or delegations of authority to responsible corporate officers identified in §144.32(a)(1)(i). The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under §144.32(a)(1)(ii) rather than to specific individuals.

(2) *For a partnership or sole proprietorship:* by a general partner or the proprietor, respectively; or

(3) *For a municipality, State, Federal, or other public agency:* by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

(b) *Reports.* All reports required by permits, other information requested by the Director, and all permit applications submitted for Class II wells under §144.31 shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a) of this section;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or

activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(3) The written authorization is submitted to the Director.

(c) *Changes to authorization.* If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d) *Certification.* Any person signing a document under paragraph (a) or (b) of this section 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.

§ 144.51 Conditions applicable to all permits.

The following conditions apply to all UIC permits. All conditions applicable to all permits shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations (or the corresponding approved State regulations) must be given in the permit.

(a) *Duty to comply.* The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Safe Drinking Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application; except that the permittee need not comply with the provisions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit under § 144.34.

(b) *Duty to reapply.* If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

(c) *Need to halt or reduce activity not a defense.* It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) *Duty to mitigate.* The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from non-compliance with this permit.

(e) *Proper operation and maintenance.* The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate

quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

(f) *Permit actions.* This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) *Property rights.* This permit does not convey any property rights of any sort, or any exclusive privilege.

(h) *Duty to provide information.* The permittee shall furnish to the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

(i) *Inspection and entry.* The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

(j) *Monitoring and records.* (1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) The permittee shall retain records of all monitoring information, including the following:

(i) Calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time; and

(ii) The nature and composition of all injected fluids until three years after the completion of any plugging and abandonment procedures specified under § 144.52(a)(6). The Director may require the owner or operator to deliver the records to the Director at the conclusion of the retention period. For EPA administered programs, the owner or operator shall continue to retain the records after the three year retention period unless he delivers the records to the Regional Administrator or obtains written approval from the Regional Administrator to discard the records.

(3) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(k) *Signatory requirement.* All applications, reports, or information submitted to the Administrator shall be signed and certified. (See § 144.32.)

(l) *Reporting requirements.* (1) *Planned changes.* The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) *Anticipated noncompliance.* The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity

which may result in noncompliance with permit requirements.

(3) *Transfers.* This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Safe Drinking Water Act. (See § 144.38; in some cases, modification or revocation and reissuance is mandatory.)

(4) *Monitoring reports.* Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) *Compliance schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 30 days following each schedule date.

(6) *Twenty-four hour reporting.* The permittee shall report any noncompliance which may endanger health or the environment, including:

(i) Any monitoring or other information which indicates that any contaminant may cause an endangerment to a USDW; or

(ii) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

(7) *Other noncompliance.* The permittee shall report all instances of noncompliance not reported under paragraphs (i) (4), (5), and (6) of this section, at the time monitoring reports

are submitted. The reports shall contain the information listed in paragraph (1)(6) of this section.

(8) *Other information.* Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

(m) *Requirements prior to commencing injection.* Except for all new wells authorized by an area permit under §144.33(c), a new injection well may not commence injection until construction is complete, and

(1) The permittee has submitted notice of completion of construction to the Director; and

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

(ii) The permittee has not received notice from the Director of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in paragraph (m)(1) of this section, in which case prior inspection or review is waived and the permittee may commence injection. The Director shall include in his notice a reasonable time period in which he shall inspect the well.

(n) 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.

(o) *Plugging and abandonment report.* For EPA-administered programs, within 60 days after plugging a well or at the time of the next quarterly report (whichever is less) the owner or operator shall submit a report to the Regional Administrator. If the quarterly report is due less than 15 days before completion of plugging, then the report shall be submitted within 60 days. The report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:

(1) A statement that the well was plugged in accordance with the plan previously submitted to the Regional Administrator; or

(2) Where actual plugging differed from the plan previously submitted, and updated version of the plan on the form supplied by the regional administrator, specifying the differences.

(p) *Mechanical integrity demonstrations.* For EPA administered programs, the Regional Administrator by written notice may require the owner or operator to comply with a schedule describing when such demonstrations shall be made.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 17.9

Document Incorporated By Reference
40 C.F.R. §144.36

§ 144.36 Duration of permits.

(a) Permits for Class I and Class V wells shall be effective for a fixed term not to exceed 10 years. UIC permits for Class II and III wells shall be issued for a period up to the operating life of the facility. The Director shall review each issued Class II or III well UIC permit at least once every 5 years to determine whether it should be modified, revoked and reissued, terminated, or a minor modification made as provided in §§ 144.39, 144.40, and 144.41.

(b) Except as provided in § 144.37, the term of a permit shall not be extended by modification beyond the maximum duration specified in this section.

(c) The Director may issue any permit for a duration that is less than the full allowable term under this section.

§ 144.53 Schedule of compliance.

(a) *General.* The permit may, when appropriate, specify a schedule of compliance leading to compliance with the SDWA and Parts 144, 145, 146, and 124.

(1) *Time for compliance.* Any schedules of compliance shall require compliance as soon as possible, and in no case later than 3 years after the effective date of the permit.

(2) *Interim dates.* Except as provided in paragraph (b)(1)(ii) of this section, if a permit establishes a schedule of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(i) The time between interim dates shall not exceed 1 year.

(ii) If the time necessary for completion of any interim requirement is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(3) *Reporting.* The permit shall be written to require that if paragraph (a)(1) of this section is applicable, progress reports be submitted no later than 30 days following each interim date and the final date of compliance.

(b) *Alternative schedules of compliance.* A permit applicant or permittee may cease conducting regulated activities (by plugging and abandonment) rather than continue to operate and meet permit requirements as follows:

(1) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(i) The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

(ii) The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.

(2) If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure timely compliance with applicable requirements.

(3) If the permittee is undecided whether to cease conducting regulated activities, the Director may issue or modify a permit to contain two schedules as follows:

(i) Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(ii) One schedule shall lead to timely compliance with applicable requirements;

(iii) The second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements;

(iv) Each permit containing two schedules shall include a requirement that after the permittee has made a final decision under paragraph (b)(3)(i) of this section it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(4) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the Director, such as a resolution of the board of directors of a corporation.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 17.11

Document Incorporated By Reference
40 C.F.R. §144.54

§144.54 Requirements for recording and reporting of monitoring results.

All permits shall specify:

(a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);

(b) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including when appropriate, continuous monitoring;

(c) Applicable reporting requirements based upon the impact of the regulated activity and as specified in Part 146. Reporting shall be no less frequent than specified in the above regulations.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 17.12

Document Incorporated By Reference
40 C.F.R. §144.35

§ 144.35 Effect of a permit.

(a) Except for Class II and III wells, compliance with a permit during its term constitutes compliance, for pur-

poses of enforcement, with Part C of the SDWA. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in §§ 144.39 and 144.40.

(b) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

§ 144.35 Transfer of permits.

(a) *Transfers by modification.* Except as provided in paragraph (b) of this section, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under § 144.39(b)(2)), or a minor modification made (under § 144.41(d)), to identify the new permittee and incorporate such other requirements as may be necessary under the Safe Drinking Water Act.

(b) *Automatic transfers.* As an alternative to transfers under paragraph (a) of this section, any UIC permit for a well not injecting hazardous waste may be automatically transferred to a new permittee if:

(1) The current permittee notifies the Director at least 30 days in advance of the proposed transfer date referred to in paragraph (b)(2) of this section;

(2) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer or permit responsibility, coverage, and liability between them, and the notice demonstrates that the financial responsibility requirements of § 144.52(a)(7) will be met by the new permittee; and

(3) The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify or revoke and reissue the permit. A modification under this paragraph may also be a minor modification under § 144.41. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph (b)(2) of this section.

§144.39 Modification or revocation and reissuance of permits.

When the Director receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit (see § 144.51 of this chapter), receives a request for modification or revocation and reissuance under § 124.5, or conducts a review of the permit file) he or she may determine whether or not one or more of the causes listed in paragraphs (a) and (b) of this section for modification or revocation and reissuance or both exist. If cause exists, the Director may modify or revoke and reissue the permit accordingly, subject to the limitations of paragraph (c) of this section, and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. See § 124.5(c)(2) of this chapter. If cause does not exist under this section or § 144.41 of this chapter, the Director shall not modify or revoke and reissue the permit. If a permit modification satisfies the criteria in § 144.41 for "minor modifications" the permit may be modified without a draft permit or public review. Otherwise, a draft permit must be prepared and other procedures in Part 124 must be followed.

(a) *Causes for modification.* The following are causes for modification. For Class II or III wells the following may be causes for revocation and reissuance as well as modification; and for all other wells the following may be cause for revocation or reissuance as well as modification when the permittee requests or agrees.

(1) *Alterations.* There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

(2) *Information.* The Director has received information. Permits other than for Class II and III wells may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance. For UIC area permits (§ 144.33), this cause shall include any information indicating that cumulative effects on the environment are unacceptable.

(3) *New regulations.* The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued. Permits other than for Class II or III wells may be modified during their terms for this cause only as follows:

(i) For promulgation of amended standards or regulations, when:

(A) The permit condition requested to be modified was based on a promulgated Part 146 regulation; and

(B) EPA has revised, withdrawn, or modified that portion of the regulation on which the permit condition was based, and

(C) A permittee requests modification in accordance with § 124.5 within ninety (90) days after FEDERAL REGISTER notice of the action on which the request is based.

(ii) For judicial decisions, a court of competent jurisdiction has remanded and stayed EPA promulgated regulations if the remand and stay concern that portion of the regulations on

which the permit condition was based and a request is filed by the permittee in accordance with §124.5 within ninety (90) days of judicial remand.

(4) *Compliance schedules.* The Director determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy. See also §144.41(c) (minor modifications).

(b) *Causes for modification or revocation and reissuance.* The following are causes to modify or, alternatively, revoke and reissue a permit:

(1) Cause exists for termination under §144.40, and the Director determines that modification or revocation and reissuance is appropriate.

(2) The Director has received notification (as required in the permit, see §144.41(d)) of a proposed transfer of the permit. A permit also may be modified to reflect a transfer after the effective date of an automatic transfer (§144.38(b)) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new permittee.

(c) *Facility siting.* Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance.

§124.5 Modification, revocation and reissuance, or termination of permits.

(a) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA)). Permits (other than PSD permits) may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon the Director's initiative. However, permits may only be modified, revoked and reissued, or terminated for the reasons specified in § 122.62 or § 122.64 (NPDES), 144.39 or 144.40 (UIC), 233.14 or 233.15 (404), and 270.41 or 270.43 (RCRA). All requests shall be in writing and shall contain facts or reasons supporting the request.

(b) If the Director decides the request is not justified, he or she shall send the requester a brief written response giving a reason for the decision. Denials of requests for modification, revocation and reissuance, or termination are not subject to public notice, comment, or hearings. Denials by the Regional Administrator may be informally appealed to the Administrator by a letter briefly setting forth the relevant facts. The Administrator may direct the Regional Administrator to begin modification, revocation and reissuance, or termination proceedings under paragraph (c) of this section. The appeal shall be considered denied if the Administrator takes no action on the letter within 60 days after receiving it. This informal appeal is, under 5 U.S.C. 504, a prerequisite to

seeking judicial review of EPA action in denying a request for modification, revocation and reissuance, or termination.

(c) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA)). (1) If the Director tentatively decides to modify or revoke and reissue a permit under §§ 122.62 (NPDES), 144.39 (UIC), 233.14 (404), or 270.41 (RCRA), he or she shall prepare a draft permit under § 124.6 incorporating the proposed changes. The Director may request additional information and, in the case of a modified permit, may require the submission of an updated application. In the case of revoked and reissued permits, the Director shall require the submission of a new application.

(2) In a permit modification under this section, only those conditions to be modified shall be reopened when a new draft permit is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit. When a permit is revoked and reissued under this section, the entire permit is reopened just as if the permit had expired and was being reissued. During any revocation and reissuance proceeding the permittee shall comply with all conditions of the existing permit until a new final permit is reissued.

(3) "Minor modifications" as defined in §§ 122.63 (NPDES), 144.41 (UIC), 233.16 (404), and 270.42 (RCRA) are not subject to the requirements of this section.

(d) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA)). If the Director tentatively decides to terminate a permit under §§ 122.64 (NPDES), 144.40 (UIC), 233.15 (404), or 270.43 (RCRA), he or she shall issue a notice of intent to terminate. A notice of intent to terminate is a type of draft permit which follows the same procedures as any draft permit prepared under § 124.6. In the case of EPA-issued permits, a notice of intent to terminate shall not be issued if the Regional Administrator and the permittee agree to termination in the course of transferring permit responsibility to an approved State under

§§ 123.24(b)(1) (NPDES), 145.24(b)(1) (UIC), or 271.8(b)(6) (RCRA).

(e) When EPA is the permitting authority, all draft permits (including notices of intent to terminate) prepared under this section shall be based on the administrative record as defined in § 124.9.

§144.41 Minor modifications of permits.

Upon the consent of the permittee, the Director may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following the procedures of Part 124. Any permit modification not processed as a minor modification under this section must be made for cause and with Part 124 draft permit and public notice as required in §144.39. Minor modifications may only:

- (a) Correct typographical errors;
- (b) Require more frequent monitoring or reporting by the permittee;
- (c) Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement; or
- (d) Allow for a change in ownership or operational control of a facility where the Director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Director.
- (e) Change quantities or types of fluids injected which are within the capacity of the facility as permitted and, in the judgment of the Director, would not interfere with the operation of the facility or its ability to meet conditions described in the permit and would not change its classification.
- (f) Change construction requirements approved by the Director pursuant to §144.52(a)(1) (establishing UIC permit conditions), provided that any such alteration shall comply with the requirements of this part and Part 146.
- (g) Amend a plugging and abandonment plan which has been updated under §144.52(a)(6).

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 17.17

Document Incorporated By Reference
40 C.F.R. §144.5

§144.5 Confidentiality of information.

(a) In accordance with 40 CFR Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information).

(b) Claims of confidentiality for the following information will be denied:

- (1) The name and address of any permit applicant or permittee;
- (2) Information which deals with the existence, absence, or level of contaminants in drinking water.

§144.7 Identification of underground sources of drinking water and exempted aquifers.

(a) The Director may identify (by narrative description, illustrations, maps, or other means) and shall protect, except where exempted under paragraph (b) of this section, as an underground source of drinking water, all aquifers or parts of aquifers which meet the definition of an "underground source of drinking water" in §144.3. Even if an aquifer has not been specifically identified by the Director, it is an underground source of drinking water if it meets the definition in §144.3.

(b)(1) The Director may identify (by narrative description, illustrations, maps, or other means) and describe in geographic and/or geometric terms (such as vertical and lateral limits and gradient) which are clear and definite, all aquifers or parts thereof which the Director proposes to designate as exempted aquifers using the criteria in 40 CFR 146.04.

(2) No designation of an exempted aquifer submitted as part of a UIC Program shall be final until approved by the Administrator as part of a UIC program.

(3) Subsequent to program approval or promulgation, the Director may, after notice and opportunity for a public hearing, identify additional exempted aquifers. For approved State programs exemption of aquifers identified (i) under §146.04(b) shall be treated as a program revision under §145.32; (ii) under §146.04(c) shall become final if the State Director submits the exemption in writing to the Administrator and the Administrator has not disapproved the designation within 45 days. Any disapproval by the Administrator shall state the reasons and shall constitute final Agency action for purposes of judicial review.

(cX1) For Class III wells, the Director shall require an applicant for a permit which necessitates an aquifer exemption under §146.04(bX1) to furnish the data necessary to demonstrate that the aquifer is expected to be mineral or hydrocarbon producing. Information contained in the mining plan for the proposed project, such as a map and general description of the mining zone, general information on the mineralogy and geochemistry of the mining zone, analysis of the amenability of the mining zone to the proposed mining method, and a time-table of planned development of the mining zone shall be considered by the Director in addition to the information required by §144.31(g).

(2) For Class II wells, a demonstration of commercial producibility shall be made as follows:

(i) For a Class II well to be used for enhanced oil recovery processes in a field or project containing aquifers from which hydrocarbons were previously produced, commercial producibility shall be presumed by the Director upon a demonstration by the applicant of historical production having occurred in the project area or field.

(ii) For Class II wells not located in a field or project containing aquifers from which hydrocarbons were previously produced, information such as logs, core data, formation description, formation depth, formation thickness and formation parameters such as permeability and porosity shall be considered by the Director, to the extent such information is available.

§124.10 Public notice of permit actions and public comment period.

(a) *Scope.* (1) The Director shall give public notice that the following actions have occurred:

(i) A permit application has been tentatively denied under § 124.6(b);
(ii) (*Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).*) A draft permit has been prepared under § 124.6(d);

(iii) (*Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404) and 271.14 (RCRA).*) A hearing has been scheduled under § 124.12, Subpart E or Subpart F;

(iv) An appeal has been granted under § 124.19(c);

(v) (*Applicable to State programs, see § 233.26 (404).*) A State section 404 application has been received in cases when no draft permit will be prepared (see § 233.39); or

(vi) An NPDES new source determination has been made under § 122.29.

(2) No public notice is required when a request for permit modification, revocation and reissuance, or termination is denied under § 124.5(b). Written notice of that denial shall be given to the requester and to the permittee.

(3) Public notices may describe more than one permit or permit actions.

(b) *Timing (applicable to State programs, see §§ 123.25 (NPDES), 145.11*

(UIC), 233.26 (404), and 271.14 (RCRA).) (1) Public notice of the preparation of a draft permit (including a notice of intent to deny a permit application) required under paragraph (a) of this section shall allow at least 30 days for public comment. For RCRA permits only, public notice shall allow at least 45 days for public comment. For EPA-issued permits, if the Regional Administrator determines under 40 CFR Part 6, Subpart F that an Environmental Impact Statement (EIS) shall be prepared for an NPDES new source, public notice of the draft permit shall not be given until after a draft EIS is issued.

(2) Public notice of a public hearing shall be given at least 30 days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.)

(c) *Methods (applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).*) Public notice of activities described in paragraph (a)(1) of this section shall be given by the following methods:

(1) By mailing a copy of a notice to the following persons (any person otherwise entitled to receive notice under this paragraph may waive his or her rights to receive notice for any classes and categories of permits);

(i) The applicant (except for NPDES and 404 general permits when there is no applicant);

(ii) Any other agency which the Director knows has issued or is required to issue a RCRA, UIC, PSD, NPDES or 404 permit for the same facility or activity (including EPA when the draft permit is prepared by the State);

(iii) Federal and State agencies with jurisdiction over fish, shellfish, and wildlife resources and over coastal zone management plans, the Advisory Council on Historic Preservation, State Historic Preservation Officers, and other appropriate government authorities, including any affected States;

(iv) For NPDES and 404 permits only, any State agency responsible for plan development under CWA section 208(b)(2), 208(b)(4) or 303(e) and the U.S. Army Corps of Engineers, the

U.S. Fish and Wildlife Service and the National Marine Fisheries Service;

(v) For NPDES permits only, any user identified in the permit application of a privately owned treatment works;

(vi) For 404 permits only, any reasonably ascertainable owner of property adjacent to the regulated facility or activity and the Regional Director of the Federal Aviation Administration if the discharge involves the construction of structures which may affect aircraft operations or for purposes associated with seaplane operations;

(vii) For PSD permits only, affected State and local air pollution control agencies, the chief executives of the city and county where the major stationary source or major modification would be located, any comprehensive regional land use planning agency and any State, Federal Land Manager, or Indian Governing Body whose lands may be affected by emissions from the regulated activity;

(viii) Persons on a mailing list developed by:

(A) Including those who request in writing to be on the list;

(B) Soliciting persons for "area lists" from participants in past permit proceedings in that area; and

(C) Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publications as Regional and State funded newsletters, environmental bulletins, or State law journals. (The Director may update the mailing list from time to time by requesting written indication of continued interest from those listed. The Director may delete from the list the name of any person who fails to respond to such a request.)

(ix)(A) To any unit of local government having jurisdiction over the area where the facility is proposed to be located; and (B) to each State agency having any authority under State law with respect to the construction or operation of such facility.

(2)(1) For major permits and NPDES and 404 general permits, publication of a notice in a daily or weekly newspaper within the area affected by the facility or activity; and for EPA-issued

NPDES general permits, in the FEDERAL REGISTER;

NOTE: The Director is encouraged to provide as much notice as possible of the NPDES or 404 draft general permit to the facilities or activities to be covered by the general permit.

(1) For all RCRA permits, publication of a notice in a daily or weekly major local newspaper of general circulation and broadcast over local radio stations.

(2) When the program is being administered by an approved State, in a manner constituting legal notice to the public under State law; and

(3) Any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(d) Contents (applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA))—(1) All public notices. All public notices issued under this part shall contain the following minimum information:

(i) Name and address of the office processing the permit action for which notice is being given;

(ii) Name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit, except in the case of NPDES and 404 draft general permits under §§ 122.28 and 233.37;

(iii) a brief description of the business conducted at the facility or activity described in the permit application or the draft permit, for NPDES or 404 general permits when there is no application.

(iv) Name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit or draft general permit, as the case may be, statement of basis or fact sheet, and the application; and

(v) A brief description of the comment procedures required by §§ 124.11 and 124.12 and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other

procedures by which the public may participate in the final permit decision.

(vi) For EPA-issued permits, the location of the administrative record required by §124.9, the times at which the record will be open for public inspection, and a statement that all data submitted by the applicant is available as part of the administrative record.

(vii) For NPDES permits only, a general description of the location of each existing or proposed discharge point and the name of the receiving water. For draft general permits, this requirement will be satisfied by a map or description of the permit area. For EPA-issued NPDES permits only, if the discharge is from a new source, a statement as to whether an environmental impact statement will be or has been prepared.

(viii) For 404 permits only,

(A) The purpose of the proposed activity (including, in the case of fill material, activities intended to be conducted on the fill), a description of the type, composition, and quantity of materials to be discharged and means of conveyance; and any proposed conditions and limitations on the discharge;

(B) The name and water quality standards classification, if applicable, of the receiving waters into which the discharge is proposed, and a general description of the site of each proposed discharge and the portions of the site and the discharges which are within State regulated waters;

(C) A description of the anticipated environmental effects of activities conducted under the permit;

(D) References to applicable statutory or regulatory authority; and

(E) Any other available information which may assist the public in evaluating the likely impact of the proposed activity upon the integrity of the receiving water.

(ix) Any additional information considered necessary or proper.

(2) *Public notices for hearings.* In addition to the general public notice described in paragraph (d)(1) of this section, the public notice of a hearing under § 124.12, Subpart E, or Subpart F shall contain the following information:

(i) Reference to the date of previous public notices relating to the permit;

(ii) Date, time, and place of the hearing;

(iii) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures; and

(iv) For 404 permits only, a summary of major issues raised to date during the public comment period.

(e) *Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).* In addition to the general public notice described in paragraph (d)(1) of this section, all persons identified in paragraphs (c)(1) (i), (ii), (iii), and (iv) of this section shall be mailed a copy of the fact sheet or statement of basis (for EPA-issued permits), the permit application (if any) and the draft permit (if any).

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 17.21

Document Incorporated By Reference
40 C.F.R. §124.11

§ 124.11 Public comments and requests for public hearings.

(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).)
During the public comment period provided under § 124.10, any interested person may submit written comments on the draft permit or the permit application for 404 permits when no draft permit is required (see § 233.39) and may request a public hearing. If no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in § 124.17.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 17.22

Document Incorporated By Reference
40 C.F.R. §124.12

§ 124.12 Public hearings.

(a) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) (1) The Director shall hold a public hearing whenever he or she finds, on the basis of requests, a significant degree of public interest in a draft permit(s);

(2) The Director may also hold a public hearing at his or her discretion, whenever for instance, such a hearing

might clarify one or more issues involved in the permit decision;

(3) For RCRA permits only, (i) the Director shall hold a public hearing whenever he or she receives written notice of opposition to a draft permit and a request for a hearing within 45 days of public notice under § 124.10(b)(1); (ii) whenever possible the Director shall schedule a hearing under this section at a location convenient to the nearest population center to the proposed facility;

(4) Public notice of the hearing shall be given as specified in § 124.10.

(b) Whenever a public hearing will be held and EPA is the permitting authority, the Regional Administrator shall designate a Presiding Officer for the hearing who shall be responsible for its scheduling and orderly conduct.

(c) Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period under § 124.10 shall automatically be extended to the close of any public hearing under this section. The hearing officer may also extend the comment period by so stating at the hearing.

(d) A tape recording or written transcript of the hearing shall be made available to the public.

(e)(1) At his or her discretion, the Regional Administrator may specify that RCRA or UIC permits be processed under the procedures in Subpart F.

(2) For initial RCRA permits for existing HWM facilities, the Regional Administrator shall have the discretion to provide a hearing under the procedures in Subpart F. The permit applicant may request such a hearing pursuant to § 124.114 no one or more issues, if the applicant explains in his request why he or she believes those issues:

(i) Are genuine issues to material fact; and (ii) determine the outcome of one or more contested permit conditions identified as such in the applicant's request, that would require extensive changes to the facility ("contested major permit conditions"). If

the Regional Administrator decides to deny the request, he or she shall send to the applicant a brief written statement of his or her reasons for concluding that no such determinative issues have been presented for resolution in such a hearing.

§124.14 Reopening of the public comment period.

(a)(1) The Regional Administrator may order the public comment period reopened if the procedures of this paragraph could expedite the decision-making process. When the public comment period is reopened under this

paragraph, all persons, including applicants, who believe any condition of a draft permit is inappropriate or that the Regional Administrator's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, must submit all reasonably available factual grounds supporting their position, including all supporting material, by a date, not less than sixty days after public notice under paragraph (a)(2) of this section, set by the Regional Administrator. Thereafter, any person may file a written response to the material filed by any other person, by a date, not less than twenty days after the date set for filing of the material, set by the Regional Administrator.

(2) Public notice of any comment period under this paragraph shall identify the issues to which the requirements of §124.14(a) shall apply.

(3) On his own motion or on the request of any person, the Regional Administrator may direct that the requirements of paragraph (a)(1) of this section shall apply during the initial comment period where it reasonably appears that issuance of the permit will be contested and that applying the requirements of paragraph (a)(1) of this section will substantially expedite the decisionmaking process. The notice of the draft permit shall state whenever this has been done.

(4) A comment period of longer than 60 days will often be necessary in complicated proceedings to give commenters a reasonable opportunity to comply with the requirements of this section. Commenters may request longer comment periods and they shall be granted under §124.10 to the extent they appear necessary.

(b) If any data information or arguments submitted during the public comment period, including information or arguments required under §124.13, appear to raise substantial new questions concerning a permit, the Regional Administrator may take one or more of the following actions:

(1) Prepare a new draft permit, appropriately modified, under §124.6;

(2) Prepare a revised statement of basis under §124.7, a fact sheet or revised fact sheet under §124.8 and

reopen the comment period under §124.14; or

(3) Reopen or extend the comment period under §124.10 to give interested persons an opportunity to comment on the information or arguments submitted.

(c) Comments filed during the reopened comment period shall be limited to the substantial new questions that caused its reopening. The public notice under §124.10 shall define the scope of the reopening.

(d) For RCRA, UIC, or NPDES permits, the Regional Administrator may also, in the circumstances described above, elect to hold further proceedings under Subpart F. This decision may be combined with any of the actions enumerated in paragraph (b) of this section.

(e) Public notice of any of the above actions shall be issued under §124.10.

Department of Energy
Division of Oil and Gas
Leg. Rule, 22-1, 22B-1 and 20-5A
Series 3, Sec. 17.24

Document Incorporated By Reference
40 C.F.R. §124.17

§ 124.17 Response to comments.

(a) *(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).)* At the time that any final permit decision is issued under § 124.15, the Director shall issue a response to comments. States are only required to issue a response to comments when a final permit is issued. This response shall:

(1) Specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and

(2) Briefly describe and respond to all significant comments on the draft permit or the permit application (for section 404 permits only) raised during the public comment period, or during any hearing.

(b) For EPA-issued permits, any documents cited in the response to comments shall be included in the administrative record for the final permit decision as defined in § 124.18. If new points are raised or new material supplied during the public comment period, EPA may document its response to those matters by adding new materials to the administrative record.

(c) *(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).)* The response to comments shall be available to the public.

§124.8 Fact sheet.

(Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).)

(a) A fact sheet shall be prepared for every draft permit for a major HWM, UIC, 404, or NPDES facility or activity, for every 404 and NPDES general permit (§§ 233.37 and 122.28), for every NPDES draft permit that incorporates a variance or requires an explanation under § 124.56(b), and for every draft permit which the Director finds is the subject of widespread public interest or raises major issues. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. The Director shall send this fact sheet to the applicant and, on request, to any other person.

(b) The fact sheet shall include, when applicable:

(1) A brief description of the type of facility or activity which is the subject of the draft permit;

(2) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.

(3) For a PSD permit, the degree of increment consumption expected to result from operation of the facility or activity.

(4) A brief summary of the basis for the draft permit conditions including

references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record required by § 124.9 (for EPA-issued permits);

(5) Reasons why any requested variances or alternatives to required standards do or do not appear justified;

(6) A description of the procedures for reaching a final decision on the draft permit including:

(i) The beginning and ending dates of the comment period under § 124.10 and the address where comments will be received;

(ii) Procedures for requesting a hearing and the nature of that hearing; and

(iii) Any other procedures by which the public may participate in the final decision.

(7) Name and telephone number of a person to contact for additional information.

(8) For NPDES permits, provisions satisfying the requirements of § 124.56.

§ 124.6 Draft permits.

(a) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) Once an application is complete, the Director shall tentatively decide whether to prepare a draft permit (except in the case of State section 404 permits for which no draft permit is required under § 233.39) or to deny the application.

(b) If the Director tentatively decides to deny the permit application, he or she shall issue a notice of intent to deny. A notice of intent to deny the permit application is a type of draft permit which follows the same procedures as any draft permit prepared under this section. See § 124.6(e). If the Director's final decision (§ 124.15) is that the tentative decision to deny the permit application was incorrect, he or she shall withdraw the notice of intent to deny and proceed to prepare a draft permit under paragraph (d) of this section.

(c) (Applicable to State programs, see §§ 123.25 (NPDES) and 233.26 (404).) If

the Director tentatively decides to issue an NPDES or 404 general permit, he or she shall prepare a draft general permit under paragraph (d) of this section.

(d) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) If the Director decides to prepare a draft permit, he or she shall prepare a draft permit that contains the following information:

(1) All conditions under §§ 122.41 and 122.43 (NPDES), 144.51 and 144.42 (UIC), 233.7 and 233.8 (404, or 270.30 and 270.32 (RCRA) (except for PSD permits));

(2) All compliance schedules under §§ 122.47 (NPDES), 144.53 (UIC), 233.10 (404), or 270.33 (RCRA) (except for PSD permits);

(3) All monitoring requirements under §§ 122.48 (NPDES), 144.54 (UIC), 233.11 (404), or 270.31 (RCRA) (except for PSD permits); and

(4) For:

(i) RCRA permits, standards for treatment, storage, and/or disposal and other permit conditions under § 270.30;

(ii) UIC permits, permit conditions under § 144.52;

(iii) PSD permits, permit conditions under 40 CFR § 52.21;

(iv) 404 permits, permit conditions under §§ 233.7 and 233.8;

(v) NPDES permits, effluent limitations, standards, prohibitions and conditions under §§ 122.41 and 122.42, including when applicable any conditions certified by a State agency under § 124.55, and all variances that are to be included under § 124.63.

(e) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) All draft permits prepared by EPA under this section shall be accompanied by a statement of basis (§ 124.7) or fact sheet (§ 124.8), and shall be based on the administrative record (§ 124.9), publicly noticed (§ 124.10) and made available for public comment (§ 124.11). The Regional Administrator shall give notice of opportunity for a public hearing (§ 124.12), issue a final decision (§ 124.15) and respond to comments (§ 124.17). For RCRA, UIC or PSD permits, an appeal may be taken

under § 124.19 and, for NPDES permits, an appeal may be taken under § 124.74. Draft permits prepared by a State shall be accompanied by a fact sheet if required under § 124.8.

§144.8 Noncompliance and program reporting by the Director.

The Director shall prepare quarterly and annual reports as detailed below. When the State is the permit-issuing authority, the State Director shall submit any reports required under this section to the Regional Administrator. When EPA is the permit-issuing authority, the Regional Administrator shall submit any report required under this section to EPA Headquarters.

(a) *Quarterly reports.* The Director shall submit quarterly narrative reports for major facilities as follows:

(1) *Format.* The report shall use the following format:

(i) Provide an alphabetized list of permittees. When two or more permittees have the same name, the lowest permit number shall be entered first.

(ii) For each entry on the list, include the following information in the following order:

(A) Name, location, and permit number of the noncomplying permittees.

(B) A brief description and date of each instance of noncompliance for that permittee. Instances of noncompliance may include one or more the kinds set forth in paragraph (a)(2) of this section. When a permittee has noncompliance of more than one kind, combine the information into a single entry for each such permittee.

(C) The date(s) and a brief description of the action(s) taken by the Director to ensure compliance.

(D) Status of the instance(s) of noncompliance with the date of the review of the status or the date of resolution.

(E) Any details which tend to explain or mitigate the instance(s) of noncompliance.

(2) *Instances of noncompliance to be reported.* Any instances of noncompliance within the following categories shall be reported in successive reports until the noncompliance is reported as resolved. Once noncompliance is reported as resolved it need not appear in subsequent reports.

(i) *Failure to complete construction elements.* When the permittee has failed to complete, by the date specified in the permit, an element of a compliance schedule involving either planning for construction or a construction step (for example, begin construction, attain operation level); and the permittee has not returned to compliance by accomplishing the required elements of the schedule within 30 days from the date a compliance schedule report is due under the permit.

(ii) *Modifications to schedules of compliance.* When a schedule of compliance in the permit has been modified under § 144.39 or § 144.41 because of the permittee's noncompliance.

(iii) *Failure to complete or provide compliance schedule or monitoring re-*

ports. When the permittee has failed to complete or provide a report required in a permit compliance schedule (for example, progress report or notice of noncompliance or compliance) or a monitoring report; and the permittee has not submitted the complete report within 30 days from the date it is due under the permit for compliance schedules, or from the date specified in the permit for monitoring reports.

(iv) *Deficient reports.* When the required reports provided by the permittee are so deficient as to cause misunderstanding by the Director and thus impede the review of the status of compliance.

(v) *Noncompliance with other permit requirements.* Noncompliance shall be reported in the following circumstances:

(A) Whenever the permittee has violated a permit requirement (other than reported under paragraph (a)(2)(i) or (ii) of this section), and has not returned to compliance within 45 days from the date reporting of noncompliance was due under the permit; or

(B) When the Director determines that a pattern of noncompliance exists for a major facility permittee over the most recent four consecutive reporting periods. This pattern includes any violation of the same requirement in two consecutive reporting periods, and any violation of one or more requirements in each of four consecutive reporting periods; or

(C) When the Director determines significant permit noncompliance or other significant event has occurred, such as a migration of fluids into a USDW.

(vi) *All other.* Statistical information shall be reported quarterly on all other instances of noncompliance by major facilities with permit requirements not otherwise reported under paragraph (a) of this section.

(b) *Annual reports.*—(1) *Annual non-compliance report.* Statistical reports shall be submitted by the Director on nonmajor UIC permittees indicating the total number reviewed, the number of noncomplying nonmajor permittees, the number of enforcement actions, and number of permit modifications extending compliance

deadlines. The statistical information shall be organized to follow the types of noncompliance listed in paragraph (a) of this section.

(2) *For State-administered UIC Programs only.* In addition to the annual noncompliance report, the State Director shall:

(i) Submit each year a program report to the Administrator (in a manner and form prescribed by the Administrator) consisting of:

(A) A detailed description of the State's implementation of its program;

(B) Suggested changes, if any to the program description (see §145.23(f)) which are necessary to reflect more accurately the State's progress in issuing permits;

(C) An updated inventory of active underground injection operations in the State.

(ii) In addition to complying with the requirements of paragraph (b)(2)(i) of this section, the Director shall provide the Administrator, on February 28th and August 31st of each of the first two years of program operation, the information required in 40 CFR 146.15, 146.25, and 146.35.

(c) *Schedule.* (1) For all quarterly reports. On the last working day of May, August, November, and February, the State Director shall submit to the Regional Administrator information concerning noncompliance with permit requirements by major facilities in the State in accordance with the following schedule. The Regional Administrator shall prepare and submit information for EPA-issued permits to EPA Headquarters in accordance with the same schedule.

QUARTERS COVERED BY REPORTS ON
NONCOMPLIANCE BY MAJOR FACILITIES

(Date for completion of reports)

January, February, and March	1 May 31
April, May, and June	1 Aug 31
July, August, and September	1 Nov 30
October, November, and December	1 Feb 28

¹ Reports must be made available to the public for inspection and copying on this date.

(2) *For all annual reports.* The period for annual reports shall be for the calendar year ending December 31, with reports completed and available

to the public no more than 60 days later.