

TRANSMITTAL SHEET FOR  
NOTICE OF INTENDED ACTION

Control 335 Department or Agency Environmental Management  
Rule No. 335-6-8-13  
Rule Title: Class VI Well Applicability and General Requirements

X New          Amend          Repeal          Adopt by Reference

Would the absence of the proposed rule significantly harm or endanger the public health, welfare, or safety?          YES

Is there a reasonable relationship between the state's police power and the protection of the public health, safety, or welfare?          YES

Is there another, less restrictive method of regulation available that could adequately protect the public?          NO

Does the proposed rule have the effect of directly or indirectly increasing the costs of any goods or services involved and, if so, to what degree?          NO

Is the increase in cost, if any, more harmful to the public than the harm that might result from the absence of the proposed rule?          N/A

Are all facets of the rulemaking process designed solely for the purpose of, and so they have, as their primary effect, the protection of the public?          YES

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Does the proposed rule have an economic impact?          NO

If the proposed rule has an economic impact, the proposed rule is required to be accompanied by a fiscal note prepared in accordance with subsection (f) of section 41-22-23, Code of Alabama 1975.

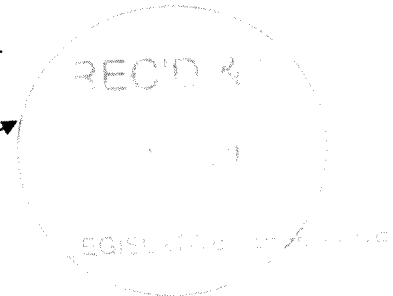
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Certification of Authorized Official

I certify that the attached proposed rule has been proposed in full compliance with the requirements of Chapter 22, Title 41, Code of Alabama 1975, and that it conforms to all applicable filing requirements of the Administrative Procedure Division of the Legislative Reference Service.

Signature of certifying officer         Nancy Elliott        

Date         May 20, 2011        

Date Filed



APA-2  
11/96

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
WATER DIVISION**

**NOTICE OF INTENDED ACTION**

**AGENCY NAME:** Alabama Department of Environmental Management

<b>Rule NO.</b>	<b>Title</b>
335-6-8-.01	Purpose
335-6-8-.02	Definitions
335-6-8-.05	Prohibited Actions
335-6-8-.07	Permit Issuance Procedures
335-6-8-.08	Public Notice Requirements
335-6-8-.10	Class V Well Permit Application Requirements
335-6-8-.12	Class V Well Permit Requirements
335-6-8-.13	Class VI Well Applicability and General Requirements
335-6-8-.14	Class VI Well Permit Application and Application Review Requirements
335-6-8-.15	Class VI Well Minimum Criteria for Siting
335-6-8-.16	Class VI Well Area of Review and Area of Review Corrective Action
335-6-8-.17	Class VI Well Financial Responsibility Requirements
335-6-8-.18	Class VI Well Construction Requirements
335-6-8-.19	Class VI Well Logging, Sampling and Testing Requirements Prior to Injection Well Operation
335-6-8-.20	Class VI Well Operating Requirements
335-6-8-.21	Class VI Well Mechanical Integrity Requirements
335-6-8-.22	Class VI Well Testing and Monitoring Requirements
335-6-8-.23	Class VI Well Reporting Requirements
335-6-8-.24	Class VI Well Plugging Requirements
335-6-8-.25	Class VI Well Post-Injection Site Care and Site Closure Requirements
335-6-8-.26	Class VI Well Emergency and Remedial Response Requirements
335-6-8-.27	Class VI Well Permit Requirements
335-6-8-.28	Technical Submittals and Other Reports to the Department
335-6-8-.29	Coordination with EPA
335-6-8-.30	Confidentiality

**INTENDED ACTION:** Revise Division 6 of the ADEM Administrative Code with the addition or amendment of Rules 335-6-8-.01 (Purpose), 335-6-8-.02 (Definitions), 335-6-8-.05 (Prohibited Actions), 335-6-8-.07 (Permit Issuance Procedures), 335-6-8-.08

(Public Notice), 335-6-8-.10 (Class V Well Permit Application Requirements), 335-6-8-.12 (Permit Issuance Procedures), 335-6-8-.13 (Class VI Well Applicability and General Requirements), 335-6-8-.14 (Class VI Well Permit Application and Application Review Requirements), 335-6-8-.15 (Class VI Well Minimum Criteria for Siting), 335-6-8-.16 (Area of Review and Area of Review Corrective Action), 335-6-8-.17 (Class VI Well Financial Responsibility Requirements), 335-6-8-.18 (Class VI Well Construction Requirements), 335-6-8-.19 (Class VI Well Logging, Sampling and Testing Requirements Prior to Injection Well Operation), 335-6-8-.20 (Class VI Well Operating Requirements), 335-6-8-.21 (Class VI Well Mechanical Integrity Requirements), 335-6-8-.22 (Class VI Well Testing and Monitoring Requirements), 335-6-8-.23 (Class VI Well Reporting Requirements), 335-6-8-.24 (Class VI Well Plugging Plan), 335-6-8-.25 (Post-Injection Site Care and Site Closure Requirements), 335-6-8-.26 (Class VI Well Emergency and Remedial Response Requirements), 335-6-8-.27 (Class VI Well Permit Requirements), 335-6-8-.28 (Technical Submittals and Other Reports to the Department), 335-6-8-.29 (Coordination with EPA), and 335-6-8-.30 (Confidentiality).

**SUBSTANCE OF PROPOSED ACTION:**

Revisions to the Division 6 Code are being proposed to include requirements for Class VI injection wells, for geologic sequestration of carbon dioxide. The proposed additions and amendments are consistent with the federal regulations for Class VI wells published in the Federal Register on December 10, 2010.

**TIME, PLACE, MANNER OF PRESENTING VIEWS:**

Comments may be submitted in writing or orally at a public hearing to be held 1:00 p.m., July 11, 2011, in the ADEM Hearing Room, 1400 Coliseum Blvd., Montgomery, Alabama 36110.

**FINAL DATE FOR COMMENT AND COMPLETION OF NOTICE:** July 11, 2011

**CONTACT PERSON AT AGENCY:** Sonja Massey (334) 271-7832



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Lance R. LeFleur  
Director

**335-6-8-.13 Technical Submittals and Other Reports to the Department Class VI Well Applicability and General Requirements.**

(1) All rules of this chapter relating to Class VI wells apply to any wells used to inject carbon dioxide specifically for the purpose of geologic sequestration, i.e., the long-term containment of a gaseous, liquid, or supercritical carbon dioxide stream in subsurface geologic formations. Class VI requirements of this chapter shall only apply to carbon sequestration occurring through a permitted Class II well, as provided for in paragraphs (6), (8) and (9) of this rule.

(2) A permit for a Class VI well shall be issued for the operating life of the facility and the post-injection site care period. The Department shall review each issued Class VI well permit at least once every 5 years to determine whether it should be modified, revoked and reissued, terminated or a minor modification made.

(3) Construction of a new Class VI injection well is prohibited prior to the issuance of a permit which contains the construction requirements of 335-6-8-.18 and specific construction details approved by the Department in accordance with this chapter.

(4) Requirements prior to commencing injection. Injection may not begin through a permitted Class VI well until:

(a) Modification of the Class VI UIC permit authorizing construction to authorize Class VI injection well operation pursuant to 335-6-8-.08. The Class VI operating permit shall include all applicable requirements of this chapter regarding Class VI wells, including but not limited to, area of review and area of review corrective action, operational requirements, maintenance of mechanical integrity, testing and monitoring, emergency and remedial response, plugging and abandonment and post-injection site care requirements for Class VI injection wells.

(b) Final injection well construction procedures and details demonstrating compliance with the requirements of 335-6-8-.18 have been submitted to the Department;

(c) All available logging and testing program data pursuant to the requirements of 335-6-8-.19 for a new Class VI injection well has been submitted to the Department;

(d) Mechanical integrity of the Class VI well has been demonstrated to the satisfaction of the Department pursuant to 335-6-8-.21;

(e) Any updates have been submitted to the Department for the proposed area of review and area of review corrective action plan, testing and monitoring plan, injection well plugging plan, post-injection site care and site closure plan, or the emergency and remedial response plan submitted under paragraph (1) of 335-6-8-.14, which are necessary to address new information collected during logging and testing of the Class VI injection well and the

formation and any updates to the alternative post-injection site care timeframe demonstration submitted under paragraph (1) of 335-6-8-.14, which are necessary to address new information collected during the logging and testing of the Class VI injection well and the formation as required by 335-6-8-.19.

(f) The Department has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the permit. If the Department intends to inspect the well prior to authorizing injection operation, notice shall be given by the Department to the permittee.

(g) Notification has been received by the Department from the permittee that all required area of review corrective actions have been completed in the Class VI well area of review;

(h) Any other information has been submitted which the Department requests; and

(i) The Department has given written authorization for injection operation to begin.

(5) The construction, operation or maintenance of any non-experimental Class V geologic sequestration well is prohibited.

(6) All rules of this chapter relating to Class VI wells also apply to owners or operators of Class II carbon dioxide injection wells or Class V experimental carbon dioxide injection wells who seek to apply for a Class VI geologic sequestration permit. Owners or operators seeking to convert existing Class II or Class V experimental wells to Class VI geologic sequestration wells must demonstrate to the Department that the wells were engineered and constructed to meet the requirements of 335-6-.18(1) and ensure protection of USDWs, in lieu of requirements of 335-6-.18(2) and 335-6-8-.19(1). A converted well must still meet all other requirements under 335-6-8-.18.

(7) By December 10, 2011, owners or operators of Class V geologic sequestration experimental technology wells no longer being used for experimental purposes that will continue injection of carbon dioxide for the purpose of geologic sequestration must apply for a Class VI permit.

(8) Owners or operators that are injecting carbon dioxide for the primary purpose of long-term storage into an oil and gas reservoir must apply for and obtain a Class VI geologic sequestration permit when there is an increased risk to USDWs compared to Class II operations and a Class VI permit is required. In determining if there is an increased risk to USDWs, the owner or operator must consider the factors specified in (9) below.

(9) The Department shall determine when there is an increased risk to USDWs compared to Class II operations and a Class VI permit is required. In order to make this determination the Department must consider the following:

- (a) Increase in reservoir pressure within the injection zone(s);
- (b) Increase in carbon dioxide injection rates;

- (c) Decrease in reservoir production rates;
- (d) Distance between the injection zone(s) and USDWs;
- (e) Suitability of the Class II area of review delineation;
- (f) Quality of abandoned well plugs within the area of review;
- (g) The owner's or operator's plan for recovery of carbon dioxide at the cessation of injection;
- (h) The source and properties of injected carbon dioxide; and
- (i) Any additional site-specific factors as determined by the Department

**Author:** Sonja Massey.

**Statutory Authority:** Code of Alabama 1975, §§ 22-22-9, 22-22A-5, 22-22A-6, 22-22A-8.

**History:** XXXXXX, 2011.