



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:**

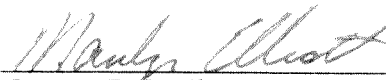
Revisions to the Division 6 Code are being proposed to include requirements for Class VI injection wells, for geologic sequestration of carbon dioxide. The proposed additions and amendments are consistent with the federal regulations for Class VI wells published in the Federal Register on December 10,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

**335-6-8-12 Class V Well Permit Requirements.** A permit for any Class V well shall contain the following:

(a) Authorization to operate as follows:

1. Authorization to inject for a period not to exceed five (5) years, except as provided for in paragraph (h) of this rule.
2. Only the fluids and/or pollutants described in the original permit application or any subsequent permit application approved by the Department shall be injected.
3. If the permittee desires to continue operation of the well past the expiration date, at least 180 days prior to expiration of a permit the permittee shall submit an application for reissuance of the permit.
4. Applications for reissuance shall comply with rule 335-6-8-10, except that previously submitted information need not be submitted unless requested by the Department.
5. Permit reissuance procedures shall be in accordance with rules 335-6-8-.07 and 335-6-8-.08.
6. The terms and conditions of an existing permit are automatically extended pending reissuance of the permit if the permittee has submitted a timely and complete application.

(b) Construction and maintenance requirements as follows:

1. The permittee shall properly construct operate and maintain treatment systems, injection well(s), monitoring well(s), sampling systems, and other related appurtenances which are installed or used by the permittee to achieve compliance with the conditions of the permit.
2. Treatment system structures, and electrical and mechanical equipment shall be protected from physical damage by the maximum expected one hundred (100) year flood. The treatment system shall remain fully operational, unless the flow of wastewater may be stored or eliminated, during a twenty-five (25) year flood. Treatment systems located in coastal areas subject to flooding by wave action shall be similarly protected from (100) year and twenty-five (25) year wave actions.
3. Department approval shall be obtained prior to constructing new wells, and modifying existing wells or surface structures.
4. When monitoring wells are required by the Department, an as built description and geologic log of the monitoring well(s) shall be obtained. The monitoring well(s) shall be completed and sampled prior to the use of the injection well.

(c) Monitoring and operating requirements as follows:

1. The permittee shall provide a method of obtaining grab and/or composite samples of fluids and/or pollutants after all treatment and prior to injection.
2. The permittee shall comply with applicable Federal and State hazardous waste management rules and regulations, and the permittee not inject any substance that is defined as hazardous or toxic by Federal or State laws or regulations or any substance not identified in the permit application. The proposed use of any substances other than those identified in the permit application must be reviewed and approved by the Department prior to use.
3. The permittee shall monitor injection(s) and monitoring well(s) as required by the Department.
4. When sampling is required by the Department, all sampling and analysis shall be in accordance with EPA approved methods and procedures in all cases where an approved method and procedure is in existence.
5. When EPA has not approved methods and procedures for any sampling and analysis required by this chapter, the method and procedure shall be stated by reference or verbatim in the permit, administrative order, directive, or plugging and abandonment plan requiring the monitoring.
6. Calibration of meters and other instruments used in monitoring shall be in accordance with the manufacturer's recommended procedure and frequency.
7. The permittee shall not exceed the limits that the Department has determined may cause, have reasonable potential to cause, or contribute to an exceedance of a narrative or numerical water quality standard for an individual fluid and/or pollutant.
8. The injection well shall function properly and, when required by the Department, fluids and/or pollutants shall not surface or saturate the uppermost soil layer.
9. When required by the Department, the permittee shall not operate any wastewater treatment plant unless the competency of the operator of such plant has been duly certified by the Department pursuant to the Alabama Water Pollution Control Act (AWPCA) and meets the requirements specified in rule 335-10-1.
10. When allowed by the Department, the permittee may bypass the treatment facilities if the bypass does not cause an injection that exceeds the limits of the permit and the bypass is necessary for essential maintenance to ensure efficient operation.
11. When allowed by the Department, the permittee may exceed permit limits due to an upset if no later than 24 hours after becoming aware of the upset, the permittee reports the occurrence and circumstances of the upset to the Department and no later than five (5) days after becoming aware of the

upset, the permittee furnishes the Department with evidence, including properly signed operating logs or other relevant evidence that an upset occurred; identification of the cause of the upset; the facility was being properly operated at the time of the upset; and the permittee took all reasonable steps to minimize and adverse impact on human health or the environment resulting from the upset.

12. When required by the Department, the permittee shall perform best management practices.

(d) Records, reports and submittals as follows:

1. The permittee shall retain all records concerning the data used to complete the permit application, the operation of the well, nature and composition of fluids and/or pollutants injected and ground water monitoring records for a period of at least three years from the date of the record(s), and shall deliver copies of any records to the Department if requested. Samples and measurements taken for monitoring, and records kept for documentation shall be representative of the activity monitored or documented. 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;
- (vi) The results of such analyses.

2. When required by the Department, the permittee shall submit to the Department, monitoring reports summarizing the results from fluid and/or pollutant monitoring, and injection well operation monitoring, not later than 28 days after the reporting period specified in the permit.

3. All reports required to be submitted to the Department by the permit and other information requested by the Department shall include the certification in subparagraph (d) item 4. of this rule signed by either the responsible official described in subparagraph (1)(n) of rule 335-6-8-.09, or a duly authorized representative of the responsible official. A person is a duly authorized representative only as follows:

(i) The authorization is made in writing by a person described in paragraph (1)(n) of rule 335-6-8-.09;

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

(iii) The written authorization is submitted to the Department.

4. The certification required in subparagraph (d) item 3. of this rule shall be as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the document, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

5. The permittee shall report to the Department any of the following:

(i) Any planned changes in the permitted facility or activity which may result in noncompliance with permit conditions;

(ii) Any planned transfer of ownership of the permitted facility by the person buying and the person selling the facility;

(iv) Compliance or noncompliance with interim and final requirements contained in any permit schedule of compliance within 14 days following each schedule date;

(v) Any relevant facts which the permittee becomes aware of which should have been submitted in a permit application, or corrections to incorrect data submitted in a permit application.

(e) Plugging and abandonment as follows:

1. The permittee shall notify the Department at least 180 days prior to well abandonment.

2. At least 90 days prior to abandonment, the permittee shall submit a plugging and abandonment plan to the Department which protects each USW from pollution by surface water and which prevents the movement of any pollutant or formation fluid from one USDW to another or from one formation to another and which isolates the injection zone.

3. Placement of cement may be by the Balance Method, Dump Bailer Method, the Two-Plug Method, or other method approved by the Department. Where required by the permit, the method to be used shall be approved by the Department prior to plugging. The well to be plugged 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 approved by the Department, prior to the placement of cement plugs.

4. When required by the Department, the permittee shall measure for the presence of contamination where it is most likely to be present at the site in accordance with procedures which are acceptable to the Department. In

selecting sample types, sample locations, and measurement methods, the permittee shall consider the method of plugging and abandonment, the nature of the fluid and/or pollutant injected, the depth to ground water, and other factors appropriate for identifying the presence of contamination. A report of the findings shall be submitted to the Department within 45 days of initiating the plugging and abandonment.

5. If contaminated soils and/or contaminated ground water is discovered as a result of subparagraph 4. of this rule, or by any other manner, the permittee shall submit a corrective action plan. Department approval of the plan shall be obtained before beginning aquifer cleanup procedures and ground water monitoring at the site.

6. Other precautions or actions may be required if deemed necessary by the Department to protect or restore a USDW.

(f) Permit modification, revocation, suspension, and termination as follows:

1. Permits may be modified, suspended, revoked, or terminated either at the request of any interested person (including the permittee) or upon the Department's initiative for any of the reasons specified below. All requests shall be in writing and shall contain facts or reasons supporting the request. The filing of a request for a permit modification, revocation and reissuance, or termination; or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(i) Violation of any provision of the permit or the chapter has occurred;

(ii) Information submitted for the purpose of obtaining the permit or influencing the permit conditions is found to be misrepresented, materially false or inaccurate;

(iii) Errors in calculations, typographical errors or clerical errors are found in the permit application or other information submitted for the purpose of obtaining a permit which materially affects permit conditions;

(iv) The Department has reason to believe that the permitting activity has resulted in pollution of an USDW or surface water or that pollution of a USDW or surface water is imminent;

(v) New information becomes known to the Department which, if available at the time the permit was issued, would have influenced the permitting decision or permit conditions;

(vi) Failure to meet conditions specified in the schedule of compliance contained in the permit;

(vii) New rules or regulations are promulgated which have a bearing upon the permitted operations;



(viii) Any other information not available at the time of permitting which may have a bearing upon the permitted operations;

(ix) The ownership of the facility is transferred to another person.

2. Modification, revocation, suspension, or termination of a permit shall not relieve the permittee of his responsibility to properly abandon the injection well.

3. If the Department tentatively decides to terminate a permit, the Department shall issue a notice of intent to terminate.

(g) General provisions as follows:

1. Any permittee authorized by permit to construct or operate an injection well shall allow access to their property and records by a duly authorized representative of the Department for the purpose of routine or other inspections and shall allow copying of records by a duly authorized representative of the Department. The duly authorized representative of the Department shall also be allowed to sample the fluids and/or pollutants to be injected, the processes and wastewater streams associated with the permitted well, and the monitoring wells.

2. When required by the Department, the permittee shall maintain financial resources in compliance with subparagraph (1)(g) of rule 335-6-8-.10 and furnish proof of this financial capability to the Department prior to beginning construction.

3. The permit shall not convey any property rights of any sort, or any exclusive privilege.

4. The permittee shall comply with all conditions in the permit.

5. The permittee shall halt or reduce injection if needed to maintain compliance with the conditions of the permit.

6. The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit.

(h) The Department may require a Class V Experimental carbon sequestration well to comply with all permitting and operational requirements of 335-6-8-.13 through 335-6-8-.27. Authorization to inject for a Class V experimental carbon sequestration well may be for a period not to exceed 10 years.

**Author:** Curt Johnson, Thad Pittman, Sonja Massey, Joe Kelly, Sonja Massey.

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

**History:** June 19, 1982; **Repealed:** April 11, 2002. **Readopted:** May 16, 2002.

**Amended:** July 28, 2009; XXXXXX, 2011.