

TRANSMITTAL SHEET FOR
NOTICE OF INTENDED ACTION

Control 335 Department or Agency Environmental Management
Rule No. 335-7-2-.15
Rule Title: System Specific Study
 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? NO

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

Does the proposed rule have an economic impact? NO

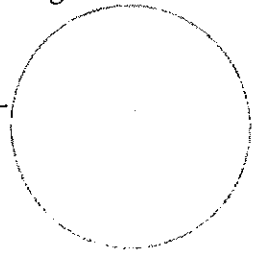
If the proposed rule has an economic impact, the proposed rule is required to be accompanied by a fiscal note prepared in accordance with subsection (f) of Section 41-22-23, Code of Alabama 1975.

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 March 21, 2016



ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION

NOTICE OF INTENDED ACTION

Agency Name: Alabama Department of Environmental Management

Rule No. & Title: 335-7-2-.15 System Specific Study (Amend)

Intended Action: The Alabama Department of Environmental Management proposes to amend rule 335-7-2-.15

Substance of Proposed Action:

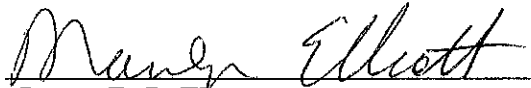
The Department proposes to make administrative corrections in this rule.

Time, Place, Manner of Presenting Views:

Comments may be submitted in writing or orally at a public hearing to be held at 1:00 PM, May 13, 2016, in the ADEM Main Hearing Room, 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Final Date for Comment and Completion of Notice: May 13, 2016

Contact Person at Agency: Christy Monk, (334) 394-4364


Lance R. LeFleur
Director

335-7-2-.15 System Specific Study.

(1) A system specific study plan must be based on either existing monitoring results as required under subparagraph (1)(a) of this rule or modeling as required under subparagraph (1)(b) of this rule. The system specific study plan must be submitted to the Department according to the schedule in rule paragraph 335-7-2-.13(c).

(a) Systems may comply by submitting monitoring results collected before the system is required to begin monitoring under rule paragraph 335-7-2-.13(c). The monitoring results must meet the following criteria:

1. TTHM and HAA5 results must be based on samples collected and analyzed in accordance with EPA approved procedures. Samples must be collected no earlier than five years prior to the study plan submission date.

2. The monitoring locations and frequency must meet the conditions identified in this subparagraph. Each location must be sampled once during the peak historical month for TTHM levels or HAA5 levels or the month with the warmest water temperature for every 12 months of data submitted for that location. Monitoring results must include all monitoring conducted under rules 335-7-2-.11 or 335-7-2-.12 plus additional monitoring results as necessary to meet the minimum sample requirements listed in the following table.

Minimum Sample Requirements

Source Water Type	System Population	Number of Monitoring Locations	Number of Samples	
			TTHM	HAA5
Surface Water or Ground Water Under the Influence of Surface Water	≤ 3,300	3	18	18
	3,301-9,999	6	36	36
	10,000-49,999	12	72	72
	50,000-249,999	24	144	144
	250,000-999,999	36	216	216
	1,000,000-4,999,999	48	288	288
Ground Water	≥ 5,000,000	60	360	360
	< 500	3	3	3
	500-9,999	3	9	9
	10,000-99,999	12	48	48
	100,000-499,999	18	72	72
	≥ 500,000	24	96	96

3. In addition to the minimum number of samples in the table above, one sample must be taken at a maximum residence time representing each source of water. Wells in the same aquifer may be reduced to one sample at a maximum residence time with Department approval.

4. Systems must report the following information when submitting monitoring results.

(i) Previously collected monitoring results and certify that the reported monitoring results include all compliance and non-compliance results generated

during the time period beginning with the first reported result and ending with the most recent monitoring result conducted under rules 335-7-2-.11 or 335-7-2-.12.

(ii) Certify that the samples were representative of the entire distribution system and that treatment, and the distribution system have not changed significantly since the samples were collected.

(iii) Schematic of the distribution system (including distribution system entry points and their sources, and storage facilities), with notes indicating the locations and dates of all completed or planned system specific study monitoring.

(iv) Population served and system type (surface, ground water under the influence of surface water, or ground water).

(v) A complete copy of the system specific study plan including any modifications by the Department must be retained for 10 years.

(vi) If the system submits previously collected data that fully meet the number of samples required under subparagraph (1)(a)2. of this rule and the Department rejects some of the data, the system must conduct additional monitoring to replace the rejected data on a schedule approved by the Department or conduct a standard monitoring plan.

(b) Systems may comply through analysis of an extended period simulation hydraulic model. The extended period simulation hydraulic model and analysis must meet the following criteria:

1. The model must simulate 24-hour variations in demand and show a consistently repeating 24-hour pattern of residence time.

2. The model must represent the following:

(i) 75% of pipe volume;

(ii) 50% of all pipe length;

(iii) All pressure zones;

(iv) All 12-inch diameter and larger pipes;

(v) All 8-inch and larger pipes that connect pressure zones, influence zones from different sources, storage facilities, major demand areas, pumps, and control valves, or are known or expected to be significant conveyors of water;

(vi) All 6-inch and larger pipes that connect remote areas of a distribution system to the main portion of the system;

(vii) All storage facilities with standard operations represented in the model;

(viii) All active pump stations with controls represented in the model;
and

(ix) All active control valves.

3. The model must be calibrated, or have calibration plans, for the current configuration of the distribution system during the period of high TTHM formation potential. All storage facilities must be evaluated as part of the calibration process. All required calibration must be completed no later than 12 months after plan submission.

(c) Reporting modeling. The specific study plan must include the following:

1. Tabular or spreadsheet data demonstrating that the model meets the requirements of subparagraph (1)(b)1. of this rule.

2. A description of all calibration activities undertaken, and if calibration is complete, a graph of predicted tank levels versus measured tank levels for the storage facility with the highest residence time in each pressure zone, and a time series graph of the residence time at the longest residence time storage facility in the distribution system showing the predictions for the entire simulation period (i.e., from time zero until the time it takes to for the model to reach a consistently repeating pattern of residence time).

3. Model output showing preliminary 24-hour average residence time predictions throughout the distribution system.

4. Timing and number of samples representative of the distribution system planned for at least one monitoring period of TTHM and HAA5 dual sample monitoring at a number of locations no less than would be required for the system under ~~standard monitoring in the Standard Monitoring section of this chapter~~ paragraph 335-7-2-.14(2) during the historical month of high TTHM. These samples must be taken at locations other than existing compliance monitoring locations.

5. Description of how all requirements will be completed no later than 12 months after the system specific study plan was submitted.

6. Schematic of the distribution system (including distribution system entry points and their sources, and storage facilities), with notes indicating the locations and dates of all completed system specific study monitoring (if calibration is complete) and all compliance monitoring.

7. Population served and system type.

8. The system must retain a completed copy of the system specific study plan including any Department modification for 10 years.

(d) If the model submitted does not fully meet the requirements of this rule, the system must correct the deficiencies and respond to Department

inquiries concerning the model. If the deficiencies are not corrected or the system fails to respond to inquiries about the model to the Department's satisfaction, the system must conduct a standard monitoring plan.

(2) The DSE report must include the following elements in subparagraphs (2)(a) – (2)(g) of this rule. The DSE report must be submitted according to the schedule in ~~rule-paragraph~~ 335-7-2-.13(c).

(a) The DSE report must include all TTHM and HAA5 analytical results from compliance monitoring and all system specific study monitoring conducted during the period of the system specific study presented in a tabular or spreadsheet format acceptable to the Department. If the system specific study plan submitted under paragraph (1) of this rule is changed, the DSE report must also include a schematic of the distribution system, the population served; and system type.

(b) If the modeling provision was used, the system must include final information for the elements described in subparagraph (1)(b)2. of this rule, and a 24-hour time series graph of residence time for each compliance monitoring location selected for use under rule 335-7-2-.12.

(c) The system must recommend and justify compliance monitoring locations and timing for use under ~~rule-subparagraph~~ 335-7-2-.13(g)2.

(d) The DSE report must include an explanation of any deviations from the approved system specific study plan.

(e) The DSE report must include the basis (analytical and modeling results) and justification that was used to select the recommended compliance monitoring locations for use under rule 335-7-2-.12.

(f) The system may submit the DSE report in lieu of the system specific study plan on the schedule identified in ~~rule-paragraph~~ 335-7-2-.13(c) for submission of the system specific study plan if the system believes that it has the necessary information by the time the system specific study plan is due. If this approach is chosen, the DSE report must also include all information required under paragraph (1) of this rule.

(g) The system must retain a completed copy of the DSE report submitted under this ~~section-rule~~ for 10 years after the date that it was submitted. The system must keep any correspondence related to the DSE report including any correspondence that modifies monitoring locations for 10 years. The DSE report and any Department correspondence must be available for review by the Department or the public.

Author: Dennis D. Harrison.

Statutory Authority: Code of Alabama 1975, §§ 22-23-33, 22-23-49, 22-22A-5, 22-22A-6.

History: January 22, 2008.

Amended: XXXX XX, 2016.