TRANSMITTAL SHEET FOR NOTICE OF INTENDED ACTION

Control		335	Department or Age	ency	Enviro	nmental Management
Rule No.		7-101				
Rule Title:	Defini	tions				**************************************
	New	X	Amend	Re	peal	Adopt by Reference
Would the a significantly welfare, or s	7 harm c	of the proj r endange	posed rule er the public health,			YES
Is there a re state's polic public healt	e power	and the p	ship between the rotection of the re?			YES
Is there ano regulation a the public?	ther, les vailable	s restricti that could	ve method of d adequately protect		•	NO
indirectly in	creasing	g the costs	the effect of directly or s of any goods or what degree?			NO
Is the increa public than absence of t	the har	n that mig	more harmful to the ght result from the			NO
solely for the	e purpos	se of, and	g process designed so they have, as their of the public?		·	YES
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Does the pro	pposed i	uie nave a	n economic impact?			NO
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Certification						
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		-	Mary El	Lot		Christians base
Date July 2	21, 2014					_/
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ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT WATER DIVISION

NOTICE OF INTENDED ACTION

AGENCY NAME:

Department of Environmental Management

RULE NO. & TITLE:

335-7-1-.01 <u>Definitions</u> (Amend)

335-7-1-.03 <u>Variance from Regulations (Amend)</u>

335-7-1-.04 <u>Variance Application</u> (Amend)

335-7-1-.05 Exemption (Amend)

INTENDED ACTION: Revise Division 7 of the ADEM Administrative Code.

SUBSTANCE OF PROPOSED ACTION: Revisions to rules 335-7-4-.01; 335-7-1-.03; 335-7-1-.04, and 335-7-1-.05 are being proposed to update definitions and make administrative corrections.

TIME, PLACE, MANNER OF PRESENTING VIEWS: Comments may be submitted in writing or orally at a public hearing to be held 2:00 p.m., September 10, 2014, in the ADEM Hearing Room, 1400 Coliseum Blvd., Montgomery, Alabama 36110.

FINAL DATE FOR COMMENT AND COMPLETION OF NOTICE: Wednesday, September 10, 2014 at 5:00 p.m.

CONTACT PERSON AT AGENCY:

Christy V. Monk, Chief

Office of Water Services at (334) 394-4364

Lance R. LeFleur

Director

- 335-7-1-.01 <u>Definitions</u>. When used in these regulations, the following words and terms shall have the meaning assigned to them as shown. Additional terms may also be defined in other chapters at the time of their use.
- (a) Clean compliance history—for the purposes of microbiological monitoring, a record of no maximum contaminant level violations, no monitoring violations, and no coliform treatment technique trigger exceedances or treatment technique violations.
- (ab) Coagulation—a process using coagulant chemicals and mixing to destabilize colloidal and suspended particles into floc.
- (bc) Combined Distribution System--the interconnected distribution system consisting of the distribution systems of wholesale systems and of the consecutive systems that receive finished water.
- (ed) Community Water System--a public water system which serves at least fifteen (15) service connections used by year-round residents or regularly serves at least twenty-five (25) year-round residents. A community water system may maintain and use its own source of either surface water or ground water or obtain water from an adjacent system and thus be a consecutive system.
- (de) Compliance cycle--the nine year calendar year cycle during which public water systems must monitor. Each compliance cycle contains three 3 year compliance periods. The first compliance cycle begins January 1, 1993 and ends December 31, 2001.
- (ef) Compliance period--a three year calendar period within a compliance cycle.
- (fg) Confluent growth--a continuous bacterial growth covering the entire filtration area of a membrane filter, or a portion thereof, in which bacterial colonies are not discrete.
- (gh) Consecutive system--a public water system that receives some or all of its finished water from one or more wholesale systems. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems.
- (hi) Contaminant--matter which renders water unfit to use due to its physical, chemical, biological, or radiological properties.
- (ij) CT--the product of residual disinfection concentration (C) in milligrams per liter determined before the first customer and the corresponding disinfection contact time (T) in minutes.
- (jk) Department--the Alabama Department of Environmental Management as created under §§ 22-22A-1, et seq., Code of Alabama, 1975.

- (kl) Director—the Director of the Alabama Department of Environmental Management or his designee.
- (1m) Disinfectant--any oxidant including but not limited to chlorine, chlorine dioxide, chloramines or ozone, added to water in any part of the treatment or distribution process, with the intent to kill or inactivate pathogenic micro-organisms.
- (mn) Disinfection—the process of applying an approved disinfectant to destroy, neutralize, or inhibit the growth of pathogenic micro-organisms.
- (no) Dual sample set--a set of two samples collected at the same time and same location, with one sample analyzed for total trihalomethanes (TTHM) and the other sample analyzed for haloacetic acids (HAA5).
- (ep) Engineer--a person currently licensed by the Alabama State Board of Registration for Professional Engineers and Land Surveyors to provide engineering services.
- (pa) Enhanced softening--the improved removal of disinfection byproduct precursors by precipitative softening.
 - (qr) EPA--the Environmental Protection Agency.
- (#<u>s</u>) Exemption--the process of allowing a water system to be excused from meeting an established drinking water standard for a specific length of time.
- (st) Federal Act--the Safe Drinking Water Act, Public Law 93-523, including all amendments.
- (tu) Filtration--a process for removing particulate matter from water by passage through media.
- (<u>wv</u>) Finished Water--water that is introduced into the distribution system of a public water system and is intended for distribution and consumption without further treatment, except as treatment is necessary to maintain water quality in the distribution system (e.g., booster disinfection, addition of corrosion control chemicals).
- $(\underline{v}\underline{w})$ Flocculation—a process to enhance agglomeration of smaller floc particles into larger more easily settleable particles through gentle stirring by hydraulic or mechanical means.
- $(\underline{w}\underline{x})$ GAC 10--granular activated carbon filter beds with an empty-bed contact time of 10 minutes based on average daily flow and a carbon reactivation frequency of every 180 days, except that the reactivation frequency shall be 120 days when used as a best available technology for compliance.

- (xy) GAC 20--granular activated carbon filter beds with any empty-bed contact time of 20 minutes based on average daily flow and a carbon reactivation frequency of every 240 days.
- (yz) Groundwater Source—a source of water that is obtained from wells or springs and not directly influenced by surface water.
- (zaa) Ground Water Under the Influence--any water beneath the surface of the ground with (1) significant occurrence of insects or other macroorganisms, algae, or large diameter pathogens such as Giardia lamblia, Cryptosporidium or (2) significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions. Direct influence must be determined for individual sources in accordance with criteria established by the Department. The Department determination of direct influence may be based on site-specific measurements of water quality and/or documentation of well construction characteristics and geology with field evaluation.

(aabb) Haloacetic acids (five) (HAA5)—the sum of the concentrations in milligrams per liter of the haloacetic acid compounds (monochloroacetic acid, dichloracetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid), rounded to two significant figures after addition.

(bbcc) Initial compliance period--the first full three-year compliance period which starts January 1, 1993 and ends December 31, 1995.

- (dd) Level 1 assessment-- is an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the system triggered the assessment. It is conducted by the system operator or owner. Minimum elements include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality was impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, where appropriate (e.g., whether a ground water system is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing. The system must conduct the assessment consistent with any State directives that tailor specific assessment elements with respect to the size and type of the system and the size, type, and characteristics of the distribution system.
- (ee) Level 2 assessment— is an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the system triggered the assessment. A Level 2 assessment provides a more detailed examination of the system (including the system's monitoring and operational practices) than does a Level 1 assessment through the use of more comprehensive investigation and review of available information, additional internal and external resources, and

other relevant practices. It is conducted by an individual approved by the State, which may include the system operator. Minimum elements include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality was impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, where appropriate (e.g., whether a ground water system is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing. The system must conduct the assessment consistent with any State directives that tailor specific assessment elements with respect to the size and type of the system and the size, type, and characteristics of the distribution system. The system must comply with any expedited actions or additional actions required by the State in the case of an *E. coli* MCL violation.

- (eeff) Locational running annual average (LRAA)--the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.
- (ddgg) Maximum Contaminant Level (MCL)--the maximum permissible level of a contaminant in drinking water, which is delivered to any user of a public water system.
- (eehh) Maximum residual disinfectant level (MRDL)--the level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. MRDLs are enforceable in the same manner as maximum contaminant levels.
- (<u>ffii</u>) Maximum Total Trihalomethane Potential---the maximum concentration of total trihalomethanes produced in a given water containing a disinfectant residual after seven days at a temperature of 25°C or above.
- (ggjj) Monitoring Trigger--a level established by EPA for each individual contaminant to be utilized to require more frequent monitoring for that contaminant.
- (hhkk) Monitoring Waiver--the process by which a public water system is allowed to reduce or eliminate required monitoring during a specific monitoring period.
- (iill) National Drinking Water Standards--drinking water standards adopted by EPA pursuant to the Federal Act.
- (jjmm) Non-community Water System--a public water system that is not a community water system. A non-community water system is either a "transient non-community water system" or a "non-transient non-community water system (NTNC)."

(lekenn) Non-transient non-community Water Systems (NTNC)--a public water system that is not a community water system and that regularly serves at least 25 of the same individuals at least six months per year.

(<u>Hoo</u>) Permit--written authorization granted by the Department to construct, install, and operate a public water system and to furnish and supply water for human consumption or use.

(mmpp) Person--any individual, firm, partnership, corporation, local governmental unit, party, company, association, federal agency, state agency, or any other public or private legal entity.

(magg) Public Water System--a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals at least sixty (60) days out of the year. A public water system includes any source, collection, treatment, storage and distribution facilities under the control of the operator of such system and used primarily in connection with such system, and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. A public water system is either a community water system, a non-community water system, or a non-transient non-community water system.

(<u>oorr</u>) Raw water--water which has received no treatment nor the application of treatment chemicals.

(ppss) Repeat compliance period--any subsequent compliance period after the initial compliance period.

(tt) Sanitary defect—a defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place.

(qquu) Sanitary survey--an onsite review of the water source, facilities, equipment, operation and maintenance of a public water system for the purpose of evaluating the adequacy of such source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water.

(vv) Seasonal system—a non-community water system that is not operated as a public water system on a year-round basis and starts up and shuts down at the beginning and the end of each operating season.

(rrww) Sedimentation—a process using gravity or separation for removal or concentration of solids prior to filtration.

(ssxx) Segmental Water System--An apartment complex or business mall that is a consecutive water system that serves at least 25 individuals or has at least 15 service connections and obtains water from a permitted public water system. This type system serves less than 3300 population, does not contain

pumps nor storage facilities, has a greater amount of plumbing lines than distribution lines and has no back siphonage potential or cross-connections. The designation of this type water system is based on assurances that monitoring and operation by the parent system is sufficient to demonstrate consistent satisfactory water quality and there is no threat to public health.

(ttyy) Service Connection--the point at which the water distribution main and the water service pipe are connected to serve water to a residence or water customer. A typical service connection is, but not limited to, the service line, backflow prevention device and meter.

(uuzz) Supplier of Water--any person who owns, operates, controls, directs, or is responsible for a public water system.

(waaa) Surface Water Source—a source of raw, untreated water that is open to the atmosphere and subject to surface water runoff or direct atmospheric contamination; or groundwater which is subject to direct influence of surface water.

(wwbbb) Technical, Managerial & Financial Capacity--the overall capability or wherewithal of a water system to consistently produce and deliver satisfactory drinking water and consistently meeting all Departmental regulations. Technical means the physical infrastructure of the water system including water source(s), treatment facilities, water storage, distribution and service connections. Managerial means the management and operational structure of the water system, including but not limited to ownership accountability, staffing and organization, and effective linkages to customers and regulatory agencies. Financial means the financial resources of the water system, including but not limited to revenue sufficiency, credit worthiness, and fiscal controls.

(**xccc) TNTC--"Too Numerous To Count" means that the total number of bacterial colonies exceeds 200 on a 47-mm diameter membrane filter used for coliform detection.

(yyddd) Total Organic Carbon (TOC)--total organic carbon in mg/L measured using heat, oxygen, ultraviolet irradiation, chemical oxidants, or combinations of these oxidants that convert organic carbon to carbon dioxide, rounded to two significant figures.

(zzeee) Transient non-community Water System--means a non-community water system that does not regularly serve at least 25 of the same persons over six months per year.

(aaafff) Treated Water--water to be used by a public water system which has received the application of approved water treatment chemicals.

(bbbggg) Treatment Technique--a required treatment process, procedure, or activity necessary to provide deliverance of safe drinking water.

(eeehhh) Trihalomethane (THM)—one of the family of organic compounds, named as derivatives of methane, wherein three of the four hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure.

(dddiii) Total Trihalomethanes (TTHM)--the sum of the concentration in milligrams per liter of the trihalomethane compounds: chloroform, dibromochloromethane, bromodichloromethane and bromoform, rounded to two significant figures.

(eeejji) Uncovered finished water storage facility--a tank, reservoir, or other facility used to store water that will undergo no further treatment to reduce microbial pathogens except residual disinfection and is directly open to the atmosphere.

(fffkkk) Unregulated Contaminant—any contaminant with established monitoring requirements but with no prescribed maximum contaminant level adopted.

(ggglll) Variance--the process by which a public water system is allowed to deviate from established regulations.

(hhhmmm) Virus--a virus of fecal origin which is infectious to humans by waterborne transmission.

(iiinnn) Volatile Synthetic Organic Chemical (VOC)--a group of organic chemical compounds considered to be probable human carcinogens for which maximum contaminant levels and monitoring requirements have been adopted by the Department.

(jjjooo) Water Dispensing Machine--a device that complies with National Sanitation Foundation (NSF) standards for drinking water equipment, obtains all of its water from a permitted public water system, and dispenses unit servings of piped water to the public.

(kkkppp) Waterborne Disease Outbreak--the significant occurrence of acute infectious illness, epidemiologically associated with the ingestion of water from a public water system which is deficient in treatment, as determined by the appropriate local or State agency.

(<u>Hlqqq</u>)Wholesale system--a public water system that treats source water as necessary to produce finished water and then delivers some or all of that finished water to another public water system. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems.

Author: Joe Alan Power, Thomas S. DeLoach, Dennis D. Harrison.

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

History: May 23, 1977; Repealed and readopted: January 4, 1989; October 31, 1990. Revised: September 23, 1992, September 19, 1995

(Emergency Rule); November 28, 1995; Revised December 8, 1998; effective: January 25, 1999. **Amended:** June 7, 2000; March 12, 2002; May 30, 2003; January 22, 2008; XXXXXX, 2014.