

Arkansas Pollution Control And Ecology Commission

Regulation Rule 5



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Liquid Animal Waste Management Systems

MARK-UP

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Regulation Rule Number 5
Liquid Animal Waste Management Systems

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Chapter 1: TITLE, PURPOSE AND APPLICABILITY

Reg. Rule 5.101

The following rules ~~and regulations~~ of the Arkansas Pollution Control and Ecology Commission adopted pursuant to the Arkansas Water and Air Pollution Control Act, Ark. Code Ann. § 8-4-101 *et seq.*, shall be known as ~~Regulation~~ Rule No. 5, Liquid Animal Waste Management Systems.

Reg. Rule 5.102 Purpose

The purpose of this ~~regulation~~ rule is to establish the minimum qualifications, standards, and procedures for issuance of permits for confined animal operations using liquid animal waste management systems within the state and for the issuance of permits for land application sites within the state. This ~~regulation~~ rule provides management, operational, and maintenance procedures necessary to prevent point source pollution and minimize nonpoint source pollution to the waters of the state and control, to the degree practicable, the generation of offensive odors by regulated confined animal operations. The siting and separation requirements set forth in this ~~regulation~~ rule are intended to protect water quality, to protect public health, and to abate odor. In order to minimize odor, the Arkansas Pollution Control and Ecology Commission's policy is to encourage permittees to adopt a good neighbor policy and consider the use of chemical or biological additives or other best management practices in the operation of liquid animal waste management systems.

Reg. Rule 5.103 Applicability

The provisions of this ~~regulation~~ rule are applicable to the operation of hog, poultry, or dairy farms or other confined animal operations using liquid animal waste management systems.

Reg. Rule 5.104 Policy for Compliance

It shall be the policy of the ~~Department~~ Division to provide a reasonable time for holders of existing permits to comply with new or revised provisions of this ~~regulation~~ rule. Holders of existing permits shall achieve compliance with this ~~regulation~~ rule at the earliest practicable time, not to exceed five (5) years from the effective date of the ~~regulation~~ rule.

Reg. Rule 5.105 Exemption

Any confined animal operation using a liquid waste disposal system shall be exempt from the requirements of this ~~regulation~~ rule if the owner or operator obtains and maintains active coverage under either an National Pollutant Discharge Elimination System individual or general permit for discharges from a concentrated animal feeding operation.

Chapter 2 : DEFINITIONS

Reg. Rule 5.201 Definitions

The following definitions shall apply:

Act means the Arkansas Water and Air Pollution Control Act, Ark. Code Ann. § 8-4-101 *et seq.*

Animal feeding operation (AFO) means a lot or facility (other than an aquatic animal production facility) where the following conditions are met: animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

Best Management Practices means schedules of activities, prohibited activities, maintenance procedures and management practices that prevent or reduce pollution of the waters of the state as set forth in this ~~regulation~~ rule and the ~~General~~-Permit.

Commission means the Arkansas Pollution Control and Ecology Commission

Confined Animal Operation means any lot or facility where livestock, fowl, or other animals have been, are or will be stabled or confined and fed or maintained and where crops, vegetation, forage growth or post-harvest residues are not sustained in the normal growing season over significant portions of the lot or facility.

Concentrated animal feeding operation (CAFO) means an AFO that is defined as a Large CAFO or as a Medium CAFO pursuant to 40 CFR § 122.23, or that is designated as a CAFO in accordance with 40 CFR § 122.23(c). Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining the number of animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes.

~~**Department** means the Arkansas Department of Environmental Quality, or its successor.~~

Director means the Director of the ~~Arkansas Department~~ Division of Environmental Quality or his/ or her designated representative.

Division means the Division of Environmental Quality, or its successor.

Liquid Animal Waste Management System means any system used for the collection, storage, distribution, or disposal of animal waste in liquid form generated by a confined animal operation.

Site Management Plan means a plan prepared by the United States Department of Agriculture Natural Resource Conservation Service, an Arkansas Natural Resources Commission water quality technician, Certified Nutrient Management Planner, the University of Arkansas Cooperative Extension Service, or a professional engineer ~~registered~~ licensed in the state of Arkansas ~~which that~~ includes a detailed map of the land application site showing all buffer zones, a description of the land use and the crops grown on the site, and a land use agreement if the site is not owned by the permittee. In Nutrient Surplus Areas designated by Ark. Code Ann. § 15-20-1104, persons drafting nutrient management plans must be certified by the Arkansas Natural Resource Commission in accordance with Ark. Code Ann. § 15-20-1106 and Arkansas Natural Resources Commission Title 20, "Rules Governing the Arkansas Nutrient Management Planner Certification Program."

Waste Management Plan means a plan prepared by the United States Department of Agriculture Natural Resource Conservation Service, an Arkansas Natural Resources Commission water quality technician, the University of Arkansas Cooperative Extension Service, or a professional engineer ~~registered~~ licensed in the state of Arkansas detailing the management and disposal of liquid wastes generated in a confined animal operation. In Nutrient Surplus Areas designated by Ark. Code Ann. § 15-20-1104, persons drafting nutrient management plans must be certified by the Arkansas Natural Resource Commission in accordance with Ark. Code Ann. § 15-20-1106 and Arkansas Natural Resources Commission Title 20, "Rules Governing the Arkansas Nutrient Management Planner Certification Program."

Waters of the state means all streams, lakes, marshes, ponds, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion of this state as defined by the Act.

Unless manifestly inconsistent with this ~~regulation~~ rule, other words and phrases used in this ~~regulation~~ rule shall have the same meaning as used in the Act.

Chapter 3 PERMIT, APPLICATIONS AND PROCEDURES

Reg. Rule 5.301 Requirements for a Permit

No confined animal operation using a liquid animal waste disposal system shall be constructed or operated unless the owner has first obtained a permit from the ~~Department~~ Division.

Reg. Rule 5.302 Permit Application Process

(A) Application and permitting procedures for new or major modifications as described in ~~Reg. Rule~~ 5.305 shall comply with the Arkansas Pollution Control and Ecology Commission ~~Regulation Rule~~ No. 8, Administrative Procedures. The ~~Department~~ Division shall provide a copy of the public notice or similar written notification of the operation to the county quorum court or, if located within an area zoned by a city, the city zoning authority. Applications for a permit under this ~~regulation rule~~ shall be made on forms provided by the ~~Department~~ Division. An applicant for a new or modification of an existing liquid animal waste disposal permit shall make a reasonable effort to notify all adjacent land owners that a complete application for a liquid animal waste disposal permit is on file with the ~~Department~~ Division. This notice shall also contain the permittee's name, mailing address, type of permit action, type of facility, size of facility and location. The land owners shall be notified at the same time that the permit application is submitted to the ~~Department~~ Division. The applicant must provide a copy of the letter sent to each adjacent land owner with the application. Any appeal rights are governed by the provisions of ~~Regulation Rule~~ No. 8.

Reg. Rule 5.303 Prohibition

The operator of a confined animal operation constructed and operated as authorized by permit in accordance with the provisions of this ~~regulation rule~~ shall not allow or cause a point source discharge from any part of the liquid animal waste management system.

Reg. Rule 5.304 Reserved

Reg. Rule 5.305 Permit Modification

When the Director receives any information (for example, receives information submitted by the permittee as required in the permit or by the ~~Department Division~~), he or she may determine whether or not one or more of the causes for modification exist. If cause exists, the Director may modify the permit accordingly and may request an updated application, if necessary. When a permit is modified, only the conditions subject to modification are reopened. If cause does not exist, the Director shall not modify the permit.

If a permit modification satisfies the criteria in ~~Reg. Rule~~ 5.306 for minor modifications, the permit may be modified without public notice. Otherwise, a draft permit must be prepared in accordance with ~~Reg. Rule~~ 5.302 and ~~Regulation~~ Rule No. 8.

Causes for modification. The following are causes for modification, but are not limited to:

- A. *Volume Increase.* A greater than ten percent (10%) increase in the volume of animal waste,
 - as excreted, generated by the facility over what was allowed by the original permit or the last major modification for an increase in volume.
- B. *Sites.* Addition of land application sites.
- C. *Waste Management Plan.* Change in waste treatment, type, handling, or disposal.

~~Reg. Rule~~ 5.306 **~~Minor modifications of permits~~ Modifications of Permits**

Upon receipt of written consent by the permittee, the Director may modify a permit to make the changes listed in this section. Such changes will be deemed minor modifications to the permit. Minor modifications allowed under this section may be made administratively in compliance with ~~Reg. Rule~~ 5.302. Any modification not made under this section shall be deemed a major modification and must follow the permitting requirements contained in ~~Regulation~~ Rule No. 8.

Minor modifications may only:

- A. Correct typographical errors;
- B. Allow for a change in ownership or operational control of a facility (transfer of the permit) 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 permittee has been submitted to the Director;
- C. Transfer permitted land application sites to another permit for the same waste source;
- D. Addition of sites not associated with a greater than ten percent (10%) increase in volume of
 - waste as excreted, needed to provide more land to lower nutrient loadings in an effort to be proactive in environmental protection. Permittee must have an active confined animal feeding operation associated with the permit;
- E. Remove land application sites from a permit;
- F. Changes or practices not associated with a significant increase in storage volume in an

effort to be proactive in environmental protection; or
G. Removal of educational requirements from waste management plan.

Chapter 4 : TECHNICAL REQUIREMENTS

Reg. Rule 5.401 Approval of Design

No liquid animal waste management system shall be constructed, modified, or placed into operation unless in accordance with final design plans and specifications approved by the ~~Department~~ Division.

Reg. Rule 5.402 Design Requirements

(A) Designs and waste management plans shall be in accordance with this Chapter and the following United States Department of Agriculture Natural Resource Conservation Service technical publications:

~~(1)~~(A) Field Office Technical Guide, as amended.

~~(2)~~(B) Agricultural Waste Management Field Handbook, as amended.

Reg. Rule 5.403 Siting Requirements

Confinement buildings, settling basins, holding ponds, and other liquid animal waste containment structures shall not be constructed within 1,320 feet of the nearest existing occupied dwelling for confined animal operations in excess of the following numbers of animals: 600 beef cattle, 430 dairy cows, 1500 finishing hogs, 600 sows, 6000 nursery pigs, 33,000 turkeys, or 130,000 chickens. A buffer distance of 500 feet shall apply to all other facilities. These buffer distances shall not apply if the existing dwelling is owned by owners or operators of the liquid animal waste management system or if the adjoining property owner consents in writing. Confined animal operations existing as of 1992 and proposing to construct a liquid animal waste containment structure in order to reduce waste/wastewater run-off to waters of the ~~State~~ state may be considered exempt from these buffer distances by the Director. These buffer distances do not apply to confinement buildings, settling basins, holding ponds, or other liquid animal waste containment structures existing as of the effective date of this ~~regulation~~ rule nor do they apply to existing structures when a liquid animal waste permit modification is required due to a change in ownership.

Reg. Rule 5.404 Subsurface Investigation Requirements

The subsurface investigation for earthen holding ponds and treatment lagoons suitability and

liner requirements may consist of auger holes, dozer pits, or backhoe pits that should extend to at least two (2) feet below the planned bottom of the excavation. In those situations where this depth is not practical in the initial on-site subsurface investigation, the applicant shall provide additional subsurface investigation documentation to the ~~Department~~ Division.

Reg. Rule 5.405 Waste Management Plan

- (A) The waste management plan shall be developed in accordance with Reg. Rule 5.402 and shall address the timing of land application of wastes with respect to the nutrient uptake cycle of the vegetation found on the land application site(s) and, to the extent practicable, shall include measures to minimize off-site obnoxious and offensive odors.
- (B) All permitted facilities must have a waste management plan for the farm and a site management plan for each land application site prepared by a professional engineer ~~registered~~ licensed in the state of Arkansas, the United States Department of Agriculture Natural Resource Conservation Service, the University of Arkansas Cooperative Extension Service, Certified Nutrient Management Planner, or a water quality technician of the Arkansas Natural Resources Commission and approved by the ~~Department~~ Division. The ~~Department~~ Division shall require proof of land ownership or of contractual agreements for use of the land as a land application site.
- (C) The facility waste management plan shall be reviewed annually by the operator. An updated waste management plan shall be submitted to ~~ADEQ~~—the ~~Department~~ Division when significant changes are made or as required by the ~~Department~~ Division. The updated waste management plan shall include the soils analysis sampled and analyzed per Reg. Rule 5.407(C).

Reg. Rule 5.406 Land Application Requirements

- (A) Waste/wastewater shall be evenly distributed over application sites at the rates specified in site management plans.
- (B) Land application of waste/wastewater shall not be undertaken when soil is saturated, frozen, covered with ice or snow, or when significant precipitation is reasonably anticipated in the next twenty-four (24) hours.
- (C) Waste/wastewater shall not be applied on slopes with a grade of more than fifteen percent (15%) or in any manner that will allow waste to enter waters of the ~~State~~ state or to run onto adjacent property without the written consent of the affected adjacent property owner.

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- (D) Application of waste/wastewater shall not be made within 100 feet of streams including intermittent streams, ponds, lakes, springs, sinkholes, rock outcrops, wells, and water supplies; or 300 feet of extraordinary resource waters as defined by the Arkansas Pollution Control and Ecology Commission ~~Regulation~~ Rule No. 2. Buffer distances for streams, ponds, and lakes shall be measured from the ordinary high water mark. The ~~Department~~ Division may require additional buffer distances deemed necessary to protect the waters of the state.
 - (E) Application of waste/wastewater shall not be made within 50 feet of property lines or 500 feet of neighboring occupied buildings existing as of the date of the permit. The restrictions regarding property lines or neighboring occupied buildings shall not apply if the adjoining property is also approved as a land application site under a permit issued by the ~~Department~~ Division or if the adjoining property owner consents in writing.
 - (F) Application of waste/wastewater shall not be made in areas where the land application of waste/wastewater is prohibited by Arkansas Department of Health ~~regulations~~ rules for the protection of public water supplies.

Reg. Rule 5.407 Record Keeping Requirements

- (A) Records shall be kept of all waste/wastewater applied. These records shall be kept in sufficient detail to determine the application rate. A daily log shall be kept of all land applied waste/wastewater when applying. The log should include date, weight and/or volume, field identification, and the acreage over which the waste/wastewater was spread. All records and logs shall be kept at the facility and provided to the ~~Department~~ Division upon request.
- (B) A representative sample of the waste/wastewater to be land applied shall be collected periodically, at a minimum of once each year, and analyzed for the following parameters: pH, Total Nitrogen, Potassium, Total ~~Phosphorous~~ Phosphorus, Soluble ~~Phosphorous~~ Phosphorus, and percent solids. The ~~Department~~ Division may require more frequent testing deemed necessary to protect waters of the state.
- (C) The soils of each field where liquid animal waste has been land applied shall be sampled and analyzed at least once every five (5) years for the following parameters: pH, Potassium, ~~Phosphorous~~ Phosphorus, and Nitrates. The soils analysis shall be submitted with the updated Waste Management Plan required in ~~Reg. Rule~~ 5.405(C).
- (D) Unless specified otherwise, methods and timing of sampling and analysis described in this Section shall be in accordance with the University of Arkansas Cooperative Extension Service guidelines.

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- (E) Annual reports for the previous calendar year shall be submitted to the ~~Department~~ Division prior to May 30 of each year ~~which~~ and must include the following: waste/wastewater analyses conducted under ~~Reg.~~ Rule 5.407(B), locations, volumes, and nitrogen application rates for the previous year; methods of application; and types of crops grown on each land application site. Reports must be submitted on forms provided by the ~~Department~~ Division.

Chapter 5 : FACILITY CONSTRUCTION CERTIFICATION

Reg. Rule 5.501 Facility Construction Certification

The provisions of this ~~Regulation~~ Rule No. 5 require all confined animal operations to be constructed in accordance with plans and specifications approved by the ~~Department~~ Division. Following completion of construction and prior to any operation commencing at the facility, certification that the facility was constructed in accordance with the approved plans and specifications must be submitted to the ~~Department~~ Division. This certification must be prepared by the United States Department of Agriculture Natural Resource Conservation Service, an Arkansas Natural Resources Commission water quality technician, the University of Arkansas Cooperative Extension Service, or a ~~Professional Engineer~~ professional engineer ~~registered~~ licensed in the ~~State~~ state of Arkansas. Authorization to operate the facility will not be issued until the certification is received by the ~~Department~~ Division.

Chapter 6 :ALTERNATIVE PERMITTING AND WASTE MANAGEMENT

Reg. Rule 5.601 Permit for Land Application Site Only

A separate permit may be issued for a land application site if the operator submits an application ~~which~~that includes a site management plan for the land application site and a plan detailing nutrient application rates; the timing of waste application with respect to the nutrient uptake cycle of the vegetation found on the land application site(s); and waste storage and distribution method(s) prepared in accordance with the requirements of this ~~regulation~~ rule. The applicant for such a permit shall notify the ~~Department~~ Division of any contractual agreement for the use of the land as a land application site by submitting a copy of the agreement. Records of waste/wastewater application shall be kept as specified in ~~Reg. Rule~~ 5.407 and shall include information regarding the source of the waste, including location and permit number, if applicable. Sampling, analysis, and annual reporting as specified in ~~Reg. Rule~~ 5.407 are required.

Reg. Rule 5.602 Composting

Waste management plans submitted in accordance with this ~~Regulation~~ Rule may include composting as an alternative to land application of liquid waste. Any such plans may provide for composting at a permitted composting facility per Arkansas Pollution Control and Ecology Commission ~~Regulation~~ Rule No. 22, Solid Waste Management Rules. If no such facility is referenced in the plan, it must include sufficient detail for a determination by the ~~Department~~ Division that point or nonpoint source pollution to the waters of the ~~State~~ state will not result from the use of this alternative.

Chapter 7 : FACILITY CLOSURE

Reg. Rule 5.701 Closure Plan Required

Should a permitted confined animal operation using a liquid waste management system cease operation, the permittee shall submit to the ~~Department~~ Division a closure plan for the liquid waste system storage/treatment structure(s) within sixty (60) days of the final day of operation for ~~Department~~ Division review and approval. Within ten (10) days of completion of closure activities, the permittee must submit certification that the facility was closed in accordance with the approved plan. The closure plan and closure certification shall be prepared by the United States Department of Agriculture Natural Resource Conservation Service, an Arkansas Natural Resources Commission water quality technician, the University of Arkansas Cooperative Extension Service, or a professional engineer ~~registered~~ licensed in the State of Arkansas.

Chapter 8 : ADMINISTRATIVE PROCEDURES

Reg. Rule 5.801 Penalty Policy and Administrative Procedures

Arkansas Pollution Control and Ecology Commission ~~Regulation~~ Rule No. 7, Civil Penalties, and ~~Regulation~~ Rule No. 8, Administrative Procedures, apply to this ~~Regulation~~ Rule.

Reg. Rule 5.802 Severability

If any provision of this ~~Regulation~~ Rule or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of this ~~Regulation~~ Rule ~~which~~ that can be given effect with the invalid provision or application, and, to this end, provisions of this ~~Regulation~~ Rule are declared to be severable.

Chapter 9: WATERSHED SPECIFIC REGULATIONS RULES

Reg. Rule 5.901 Buffalo National River Watershed

- (A) The following ~~definitions~~definition ~~apply~~ applies to Reg. Rule 5.901:
- (1) The “Buffalo ~~National~~ River Watershed” is the area within United States Geological Service Hydrologic Unit Code 11010005.
 - (2) “Coverage” means a notice of coverage issued pursuant to a National Pollution Discharge Elimination System general permit and Regulation No. 6.
- (B) The Director shall not issue a permit pursuant to ~~Regulation~~ Rule No. 5 for a Confined Animal Operation in the Buffalo ~~National~~ River Watershed with:
- (1) 750 or more swine weighing 55 pounds or more; or
 - (2) 3,000 or more swine weighing less than 55 pounds.
- (C) ~~Reg. 5.901(B) does not prohibit the Director from:~~
- (1) ~~Issuing a permit renewal or modification for a Confined Animal Operation in the Buffalo National River Watershed with an active permit as of the effective date of this regulation; or~~
 - (2) ~~Issuing a new Regulation No. 5 permit for a facility which holds an active Regulation No. 6 permit or coverage as of the effective date of this regulation.~~
- The Director shall not issue a new permit or modify or reissue an existing permit pursuant to Rule No. 5.601 for Land Application Sites Only in the Buffalo National River Watershed.
- (D) ~~A permit renewal, permit modification, or new permit issued pursuant to Reg. 5.901(C) shall not increase the number of swine permitted at a facility.~~
- (E) ~~Five years from the effective date of this regulation the Director shall initiate rulemaking to either delete this paragraph, Reg. 5.901(E), or delete the entirety of Reg. 5.901.~~

Chapter 10: EFFECTIVE DATE

Reg. Rule 5.1001 Effective Date

This ~~regulation~~ rule is effective ten (10) days after filing with the Secretary of State, the State Library, and the Bureau of Legislative Research.