

Pollution Control and Ecology Commission #014.00-005

Arkansas Pollution Control and Ecology Commission

Regulation 5



Liquid Animal Waste Management Systems

**Approved by Arkansas Pollution Control and Ecology Commission:
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Regulation Number 5
Liquid Animal Waste Management Systems

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CHAPTER ONE: TITLE, PURPOSE AND APPLICABILITY

Reg. 5.101 Title

The following rules and regulations of the Arkansas Pollution Control and Ecology Commission (the "Commission"), adopted pursuant to the Arkansas Water and Air Pollution Control Act (Act 472 of the Acts of Arkansas for 1949, as amended, codified at A.C.A. § 8-4-101 et seq.) (the "Act"), shall be known as Regulation No. 5 - Liquid Animal Waste Management Systems (the "Regulation").

Reg. 5.102 Purpose

The purpose of this Regulation 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 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 are intended to protect water quality, to protect public health, and to abate odor. In order to minimize odor, the 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. 5.103 Applicability

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

Reg. 5.104 Policy for Compliance

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

CHAPTER TWO: DEFINITIONS

Reg. 5.201 Definitions

The following definitions shall apply:

Act means the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended).

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 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.

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

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

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 USDA 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 in the state of Arkansas which 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 ("ANRC") in accordance with Ark. Code Ann. § 15-20-1106 and ANRC Title 20, "Rules Governing the Arkansas Nutrient Management Planner Certification Program".

Waste Management Plan means a plan prepared by the USDA Natural Resource Conservation Service, an Arkansas Natural Resources Commission water quality technician, the University of Arkansas Cooperative Extension Service, or a professional engineer registered 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 ("ANRC") in accordance with Ark. Code Ann. § 15-20-1106 and ANRC 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, other words and phrases used in this Regulation shall have the same meaning as used in the Act.

CHAPTER THREE: PERMIT, APPLICATIONS AND PROCEDURES

Reg. 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.

Reg. 5.302 Permit Application Process

- (A) Application and permitting procedures for new or major modifications as described in Reg. 5.305 shall comply with the Arkansas Pollution Control and Ecology Commission Regulation No. 8, Administrative Procedures. The Department 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 shall be made on forms provided by ADEQ.
- (B) 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. 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. 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 No. 8.

Reg. 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 shall not allow or cause a point source discharge from any part of the liquid animal waste management system.

Reg. 5.304 Educational Requirements

- (A) Applicants for permits and all managing owners or managing operators of the proposed operation must provide certification of satisfactory completion of formal education or training in the areas of waste management and odor control. Proof of certification of a minimum of four (4) hours of individualized training and education must be submitted to the Department prior to operation of the facility. The curricula must be approved by ADEQ.

- (B) All managing owners or managing operators of all permitted liquid animal waste disposal systems subject to this Regulation must provide certification of satisfactory completion of continuing education in the areas of waste management and odor control once every three (3) years. The curricula and content must be approved by ADEQ. Providers of the training must supply certification of training and attendance within thirty (30) days of training event to the permittee and to the Department.
- (C) Failure to obtain the required training as provided in this Section shall be deemed a violation of this Regulation.

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

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

- A. *Volume Increase.* A greater than ten percent 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. 5.306 **Minor 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. 5.302. Any modification not made under this section shall be deemed a major modification and must follow the permitting requirements contained in Regulation 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 permittees 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 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.

CHAPTER FOUR: TECHNICAL REQUIREMENTS

Reg. 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.

Reg. 5.402 Design Requirements

- (A) Designs and waste management plans shall be in accordance with this Chapter and the following USDA Natural Resource Conservation Service technical publications:
- (1) Field Office Technical Guide, as amended.
 - (2) Agricultural Waste Management Field Handbook, as amended.

Reg. 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 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 nor do they apply to existing structures when a liquid animal waste permit modification is required due to a change in ownership.

Reg. 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.

Reg. 5.405

Waste Management Plan

- (A) The waste management plan shall be developed in accordance with Reg. 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 in the state of Arkansas, the USDA 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. The Department 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 when significant changes are made or as required by ADEQ. The updated waste management plan shall include the soils analysis sampled and analyzed per Reg. 5.407(C).

Reg. 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 hours.
- (C) Waste/wastewater shall not be applied on slopes with a grade of more than 15 percent or in any manner that will allow waste to enter waters of the State or to run onto adjacent property without the written consent of the affected adjacent property owner.
- (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 No. 2. Buffer distances for streams, ponds and lakes shall be measured from the ordinary high water mark. The Department 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 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 for the protection of public water supplies.

Reg. 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 ~~land~~ waste/wastewater was spread. All records and logs shall be kept at the facility and provided to the Department 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, Soluble Phosphorous and percent solids. The Department 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 and Nitrates. The soils analysis shall be submitted with the updated Waste Management Plan required in Reg. 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.
- (E) Annual reports for the previous calendar year shall be submitted to the Department prior to May 30 of each year which must include the following: waste/wastewater analyses conducted under Reg. 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.

CHAPTER FIVE: FACILITY CONSTRUCTION CERTIFICATION

Reg. 5.501 Facility Construction Certification

The provisions of this Regulation No. 5 require all confined animal operations to be constructed in accordance with plans and specifications approved by the Department. 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. This certification must be prepared by USDA Natural Resource Conservation Service, an Arkansas Natural Resources Commission water quality technician, the University of Arkansas Cooperative Extension Service, or a Professional Engineer registered in the State of Arkansas. Authorization to operate the facility will not be issued until the certification is received by the Department.

CHAPTER SIX: ALTERNATIVE PERMITTING AND WASTE MANAGEMENT

Reg. 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 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. The applicant for such a permit shall notify the Department 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 ~~Section~~ Reg. 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. 5.407 are required.

Reg. 5.602 Composting

Waste management plans submitted in accordance with this Regulation 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 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 that point or nonpoint source pollution to the waters of the State will not result from the use of this alternative.

CHAPTER SEVEN: FACILITY CLOSURE

Reg. 5.701

Closure Plan Required

- (A) Should a permitted confined animal operation using a liquid waste management system cease operation, the permittee shall submit to the Department a closure plan for the liquid waste system storage/treatment structure(s) within sixty (60) days of the final day of operation for Department 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 USDA Natural Resource Conservation Service, an Arkansas Natural Resources Commission water quality technician, the University of Arkansas Cooperative Extension Service or a professional engineer registered in the State of Arkansas.

CHAPTER EIGHT: EFFECTIVE DATE

Reg. 5.801

Effective Date

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