

Water Pollution Laws and Regulations for Animal Waste Management

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State and national governments have passed laws and established pollution abatement regulations affecting livestock and poultry producers. At the national level, the Environmental Protection Agency (EPA), with a regional office in Kansas City, is the regulatory agency.

In Missouri, the Clean Water Commission administers the Missouri Clean Water Law. The Clean Water Commission works through the staff of the Water Quality Program, Division of Environmental Quality of the Department of Natural Resources. (In this guide the Clean Water Commission is referred to as the "agency.")

Considerable effort has been made to coordinate these two regulatory agencies. The Missouri General Assembly amended state statutes to make it possible for the state agency to administer the regulations established by EPA. Consequently, the staff in Jefferson City should be contacted when questions arise about current pollution regulations.

Missouri livestock and poultry producers should be concerned primarily with state regulations since those complying with Missouri regulations are also in compliance with federal regulations. Small units are not exempt in Missouri as they may be under federal regulations as is discussed later.

Both state and federal regulations will be briefly discussed as they pertain to animal waste management.

Missouri Law

State Water Policy

The Missouri Clean Water Law (enacted in 1972) states as general policy that

... it is hereby declared to be the public policy of this state to conserve the waters of the state and to protect, maintain and improve the quality thereof for public water supplies and for domestic, agricultural, industrial, recreational and other legitimate beneficial uses and for the propagation of wildlife, fish and aquatic life. . . .¹

The state agency must establish and enforce regulations to carry out this policy.

Waters of the State Defined

The above statement of policy says that the *waters of the state* must be conserved, protected, maintained and improved. Waters of the state are defined in the Missouri

Clean Water Law as:

... all rivers, streams, lakes, and other bodies of surface and sub-surface water... not entirely confined and located completely upon lands owned, leased or otherwise controlled by a single person or by two or more persons jointly. . . .¹

A close look at this definition suggests that not much is omitted. If a pollution problem is created when water leaves a person's property, the state may be involved.

What is Water Pollution?

A brief and useful definition of water pollution is "depositing or causing anything to be deposited in the water that unreasonably interferes with its use by others."

The rather lengthy legal definition of water pollution in Missouri law is:

... such contamination or other alterations of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will or is reasonably certain to create a nuisance or render such water harmful, detrimental or injurious to public health, safety, or welfare, or to domestic, industrial, agricultural, recreational, or other legitimate beneficial uses, or to wild animals, birds, fish or other aquatic life.¹

Federal Law

The Federal Water Pollution Control Act, as amended by Public Law 92-500, enacted October 1972, prohibits any discharge of pollutants into a waterway (streams, rivers, lakes) from a *point source*, unless authorized by a permit from the regulatory agency. In Missouri, authority has been delegated to the state by EPA. Therefore, the authorizing agency is the Department of Natural Resources.

In the past feedlots were not considered a point source of pollution. A point source was considered to be the outfall from a pipe such as that from an industry or municipal sewage treatment plant. But in P.L. 92-500, confined feeding is defined as a point source. Thus, EPA was faced with establishing regulations that would move toward eliminating water pollution resulting from confined feeding operations. EPA proposed regulations aimed toward meeting the intent of the law, but reaction was vigorous with a court case resulting. As a consequence, substantial changes were made in the proposed regulations.

¹Chapter 204, Revised Statutes of Missouri, 1969, as amended.

On March 11, 1976 EPA issued "final" regulations establishing conditions under which animal feeding operations are subject to permit regulations. The regulations were effective immediately.

The big change from earlier proposed regulations is that *animal feeding operations that do not discharge pollutants into the nation's waters are not required to apply automatically for a permit.*

This is regardless of size, and is a significant change by EPA in their approach to regulating animal feeding operations. Missouri guidelines recommend that a waste management system be constructed and managed so that there is no planned discharge. Thus, livestock and poultry producers who follow Missouri guidelines are not required to apply for a permit.

In general the intent of both federal and state laws is that if there is a discharge from a confined feeding facility, steps must be taken to correct it. The major thrust of federal laws and regulations is toward the large confined feeding units, but smaller units are not exempt in Missouri.

Livestock and poultry producers who have constructed waste management facilities following the Missouri guidelines are in compliance with federal regulations. Actually, Missouri laws and regulations are more comprehensive in that those facilities smaller than 300 animal units exempted in the federal regulations are not exempt under Missouri regulations.

The important point is that livestock and poultry producers adopting the Missouri approach to animal waste management will be in compliance with federal as well as state water pollution laws and regulations.

The Missouri Approach

In view of the need for an animal waste management system that would not pollute water of the state and that would utilize the manure as a resource, the Missouri approach was developed. There are three basic concepts:

(1) Systems are designed so that there will be no planned discharge into surface or subsurface water as there is in industrial or municipal waste treatment systems.

(2) Systems are designed and managed so that all animal wastes are collected and applied to the land in a controlled manner.

(3) An operating *letter of approval* is issued by the state agency upon completion of an approved system.

Manure produced from confined feeding operations is a resource that has value if applied to the land. Manure contains nitrogen, phosphorus, potassium and other elements needed for crop production. Farmers, unlike most cities or industries, usually have land used for crop production. The objective then is to move the waste from the confined feeding areas to the land and recycle the nutrients in crop production.

Structures and facilities are built to handle the wastes produced. The owner has the responsibility to see that no water pollution will originate from his property. If all the waste is applied to the land in an approved manner, water pollution does not occur. But any system of waste management designed so there will be no point source of discharge from the property will require attention and proper management.

For information about planning and designing an approved waste management system see UMC Extension publication MP 232, *The Missouri Approach to Animal Waste Management.*

For information regarding the potential for civil liability for odors, flies, dust, etc., refer to UMC Guide 851, "Stockmen's Liability Under The Missouri Nuisance Law."

Letter of Approval

Another important part of the Missouri approach is the *letter of approval* issued by the state agency. This letter is issued to all individuals who apply and show evidence of having a waste management system that can be managed and operated so that there will be no point source of discharge from their property. There is no filing fee for a letter of approval.

The letter of approval offers an incentive to the livestock producer. A record of his waste disposal system is placed on file, indicating that the wastes are being disposed of in an approved manner and are not polluting the waters of the state.

The letter of approval is not a permit. The state agency requires permits for all industrial or municipal waste treatment facilities that discharge into waters of the state. Animal waste management facilities that do not discharge into waters of the state can obtain a letter of

approval, thus, the need to distinguish between a permit and a letter of approval.

Prior to getting a letter of approval, construction plans for the proposed waste management facilities must be submitted to the state agency, along with a completed application form. (Forms are available from the agency.) The proposed plans will then be reviewed by the staff, and upon a favorable review, the applicant will be notified to proceed with construction. Approval of construction plans by the agency is *not* an operating letter of approval.

After construction is completed, an on site inspection may be made by the agency or its representative. If the completed facility is built according to the approved plans, an operating letter of approval is issued by the agency. Those operations that have approval to construct but do not have a letter of approval to operate have not completed all the requirements for an approved waste management system.

All existing letters of approval remain in force as long as all conditions of approval are met. If the waste management system is changed substantively or the number of animals increased, then the existing letter of approval is invalidated.

When is a Facility Considered Complete?

A waste management facility is considered complete when:

- (1) All earth moving is done and the berm is seeded;
- (2) Concrete work is finished; and
- (3) The system is ready to be put into operation.

Plans must be made for distribution of both liquid and solid waste. The overall plan presented to the agency should describe how the waste will be transported and applied to the land and the type of equipment to be used.

Animal Waste and Household Water Supply

All plans must show the location of *any household water* supply in relation to the proposed animal waste facility. The agency recommends that a waste storage lagoon be at least 300 feet from a water supply used for human consumption and *requires* that it be at least 100 feet. If the plans include a lagoon 100-300 feet from the water supply, a favorable report must be obtained from the Missouri Division of Geology and Land Survey. A letter of approval will not be issued if the distance is less than 100 feet. The State

Milk Board will not permit lagoons to be closer than 100 feet from the water supply on Grade A dairy farms.

When earthen basins (lagoons) are to be used as part or all of the waste treatment facilities, the Missouri Division of Geology and Land Survey may be contacted by the agency for their comments regarding the geological suitability of the site. An unfavorable ruling on the proposed site by the Missouri Geological Survey would require the selection of another site or designing a waste management system without an earthen lagoon. The purpose of this review is to protect the ground water.

Permits

When a discharge into a stream is planned, two types of permits are required by the state agency: (1) construction and (2) operating. Plans and specifications of proposed facilities must be submitted to the agency along with a completed application for a permit to discharge at least 180 days in advance of the anticipated discharges. Such plans must be prepared by a registered professional engineer.

The plans must show that adequate treatment of the waste is provided to protect the water quality of the stream. This requires a higher level of waste treatment than is needed for land application of wastes. Monitoring of discharges is also required as a condition of the permit.

Upon a favorable review of the plans, a *permit for the construction* of the facilities will be issued. When the facilities are completed, a staff member of the agency will inspect the facilities. If they have been constructed in accordance with the approved plans and specifications, an *operating permit* will be issued. The filing fee for a construction permit is \$25 and for an operating permit, \$75. Operating permits may be issued for any period of time up to a maximum five years. They may be renewed at that time. Anyone contemplating a discharge into waters of the state should request a copy of the regulations from the agency.

In general, animal producers should work to obtain a letter of approval rather than a permit.

In order to avoid confusion on the part of the animal producers, it is recommended that questions about pollution regulation be directed to: Water Quality Program, Dept. of Natural Resources, P. O. Box 1368, Jefferson City, MO 65101, or phone (314) 751-3241. The state implements both federal and state laws and regulations concerning animal waste.

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