Pork Industry Handbook: Legal Guidelines for Swine Waste Management
Michigan State University
Cooperative Extension Service

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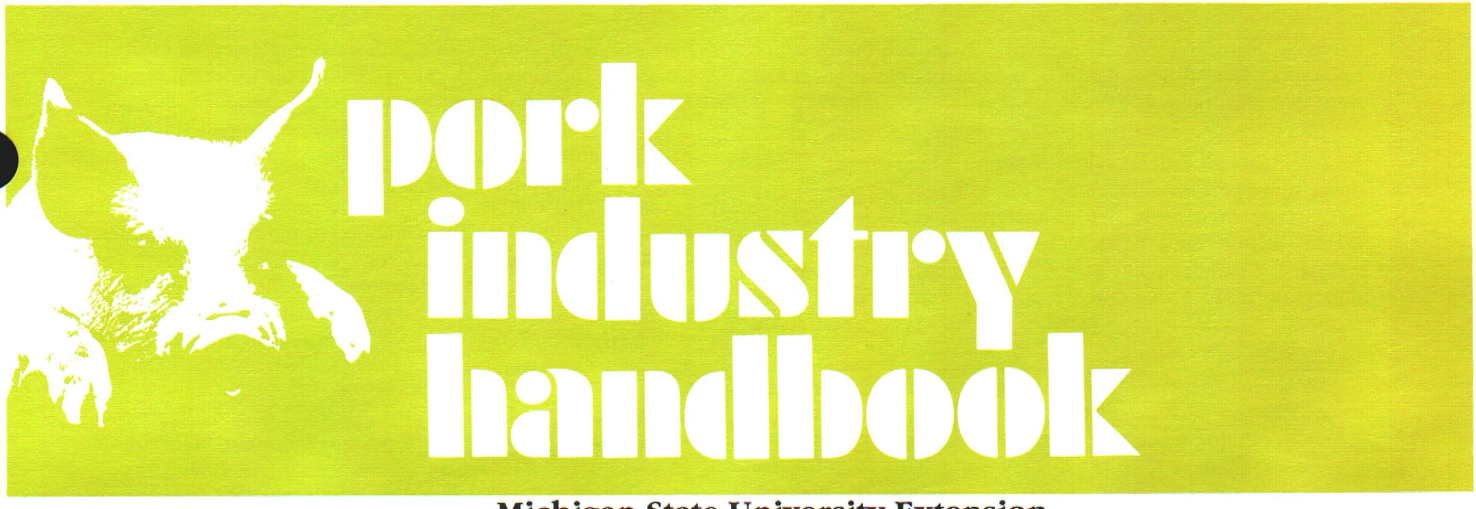

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The Case for Regulatory Intervention

Manure from livestock production facilities is a major source of environmental pollution. Recent trends toward larger feedlots and enclosed facilities concentrate manure in smaller areas. Because of this, significant environmental degradation may result if an appropriate manure management plan is not implemented. Manure has the potential to pollute surface water, groundwater, degrade localized air quality, and have detrimental effects on soils if disposed of improperly.

Improper handling and disposal of manure can cause pollution because the manure contains nutrients including nitrogen, phosphorus, as well as microorganisms. Nitrates and microorganisms have the potential to contaminate groundwater. Storm runoff from feedlots, manure storage facilities, and land where manure has been applied has the potential to transport manure, or its components, into surface waters. Excess nutrients promote increased plant growth in a water supply which, when plants die, their decomposition depletes the dissolved oxygen in a water supply, causing fish kills. Pathogenic microorganisms can make water unfit for livestock or human consumption.

Manure can degrade air quality from the odors and dust produced. Manure attracts flies. Odor is especially apparent when the stored manure is allowed to undergo anaerobic (in the absence of oxygen) decomposition. When the manure is agitated, noxious gases are released into the surrounding atmosphere. At concentrated levels, this may cause nausea, watery eyes and loss of appetite. At extremely concentrated levels, common in unventilated storage facilities, the gases may cause unconsciousness, or death, by suffocation. (See PIH-104, Safety in swine production systems.) Noxious gases produced by manure may affect the health of livestock and workers and decrease the efficiency of a pork production facility. It is important to note that perception of odor is subjective and may or may not be pollution–depending on who smells it.

In the early 1970s, public concern increased regarding the need to protect the environment from further degradation. Federal and state laws were enacted to protect the nation's water, air, and other natural resources. Agricultural activities, particularly livestock production, along with industrial and municipal activities, were identified as sources of pollution and were regulated by these laws. In addition to public regulation of pollution, private regulation through the common law theory of nuisance serves to regulate pollution. The purpose of this fact sheet is to identify and discuss the laws that apply to manure management including The National Clean Water Act, state laws, nuisance theory, agricultural zoning, Right to Farm statutes, and cost-sharing programs.

Public Regulation of Pollution

Clean Water Act. In 1972 Congress passed the Federal Water Pollution Control Act (FWPCA); better known as the Clean Water Act (CWA). The Act delegated the authority to administer this complex law to the United States Environmental Protection Agency (EPA). In turn, if a state meets the EPA's standards, the state's Environmental Protection Agency or water control board may implement the Act. The CWA prohibits the discharge of any pollutants into the nation's waters from a point source without an appropriate permit. Some feedlots are classified as point sources under the Act. The National Pollution Discharge Elimination System (NPDES) is the permitting program that operates at the Federal level. Most states have their own EPA approved permit programs replacing the NPDES permit program.

Feedlots, or confined animal feeding operations, are required to have a NPDES permit if they fall under any of three criteria. 1) Any feedlot having over 2,500 head of swine, or any combination of livestock resulting in more than 1000 animal units (swine weighing over 55 pounds are equivalent to 0.4 animal units), is required to obtain a permit. 2) Any operation having over 750 head of swine and discharging waste directly into waters of the United States are also required to obtain a permit. 3) The EPA also may make case by case designations requiring permits from smaller feedlots that pollute or have the potential to pollute. Smaller operations–items under 2) and 3)–that are required to have a permit must either discharge waste directly into U.S. waters by a man-made

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device or have those waters pass directly though the livestock operation. The NPDES permit sets effluent limitation guidelines that must be met. EPA regulations prohibit the discharge of "process waste water pollutants to navigable waters."

Even though federal NPDES permit requirements do not apply to all pork production operations, either because of size or because manure is not discharged directly into surface waters, many states have more stringent regulations. Minnesota, for example, has a size requirement as small as ten animal units (25 swine over 55 pounds). Permits also may be required in some states in order to expand existing operations or construct new facilities.

Most environmental regulatory agencies have the authority to inspect any pork production operation that is suspected of being a pollution hazard, but inspection and enforcement usually are limited to a response to a complaint. Penalties for operating without a permit when one is required are usually in the form of heavy fines. Failure to comply with the NPDES Act can result in civil and criminal fines, each up to $25,000 per day of violation.

Manure application rates are regulated in some states, with rates being dependent on the nutrient requirements of the crop and the slope of the land. Over-applying manure to cropland, and applying manure to sloping erodable land has the potential of being washed into surface waters. Manured fields are classified as nonpoint sources of pollution by the CWA and fall under different regulations. Most agricultural activities are nonpoint sources rather than point sources. However, if the feedlot requires a permit as a point source of pollution, the permit may spell out the method and timing of disposal.

The 1987 amendments to the CWA focused in part on nonpoint source (NPS) pollution adding to the list of the Act's general goals. The new goal is: "It is the national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner to enable the goals of this Act to be met through the control of both point source and nonpoint sources of pollution." The 1987 amendments require states to identify areas that cannot meet water quality standards without NPS control. States are required to adopt "best management practices" (BMPs) to reduce NPS pollution and to develop a program to implement BMPs.

BMPs are intended to improve manure handling and the efficient utilization of nutrients in manure, thereby eliminating the risk of environmental degradation. Examples include keeping an account of nitrogen applied to fields and balancing it with the nitrogen requirement of the crop. Farmers also may need to install vegetative (usually grass) filter strips around fields to enhance infiltration of any runoff and the utilization of nutrients in the runoff. Pork producers who use land application as a manure management strategy should use these BMPs when applying manure to the land. BMPs may be required in some states. It should be noted, however, that most states have been reluctant to impose these requirements, and efforts to control NPS pollution have not been seen as very effective.

The CWA has a provision to allow for citizen enforcement of the law if the EPA fails to act on complaints. Any aggrieved citizen may file to enforce provisions of the Act. Pork producers may find themselves confronted with a citizen suit and must prove compliance.

Clean Air Act (CAA). Passed in 1970, the Federal Clean Air Act is the primary law controlling air pollution in the United States. It is similar to the CWA in that states have the opportunity to administer it through State Implementation Plans (SIPs) approved by the EPA. To date, a few states include provisions in their SIPs to prohibit excessive odors and dust. Colorado and Arizona both have implemented measures to restrict the amount of dust produced on livestock feedlots. Iowa established a minimum distance between anaerobic lagoons and residences or public lands. Michigan specifically exempts farming operations from odor control regulations.

Local Ordinances. Local governments regulate operations in several ways. Ordinances may be in the form of minimum distance requirements between businesses, homes, and churches and the adjoining feedlots, manured fields, or manure storage facilities. County zoning regulations may restrict a producer's ability to expand the operation. Consult local zoning authority or land use department for particular ordinances.

Cost-Sharing Opportunities. Several cost-sharing opportunities are available to pork producers who need to install runoff control systems, manure storage facilities, filter strips, or other pollution control measures. Cost-sharing opportunities are available from both federal and state governments. The programs have a goal of encouraging soil and water conservation practices for agriculture. Farmers voluntarily enter into an agreement to implement practices, and the cost-sharing program pays for a portion of construction costs. Expenses of installing pollution equipment, not paid for by cost-sharing arrangements may be reduced by taking depreciation deductions or soil and water conservation deductions on the farmers tax return for the pollution expense not reimbursed under the cost-share arrangement.

Most federal funds are distributed by the Agricultural Stabilization and Conservation Service (ASCS), a division of the U.S. Department of Agriculture. Several states have programs which offer cost-sharing funds to farmers. Iowa, for example, has two programs funding various pollution prevention projects. REAP (Resource Enhancement and Protection) and CLEAN (Committing Lottery to Environment, Agriculture, and Natural Resources). Both have money available for pork production facilities. Iowa's Department of Agriculture and Land Stewardship had other programs that provided $6.8 million a year between 1989 and 1990 for various projects.

There are eligibility requirements for participation in cost-sharing programs and restrictions on how the money can be used. Some programs provide money in areas with poor water quality. A farmer applying for cost-sharing benefits may be evaluated to determine potential for pollution problems associated with the farm. Benefits often are restricted to certain practices. The Agricultural Conservation Program, administered by ASCS, has a provision in its cost-sharing agreement which states that if the practice is destroyed or the land is sold without a written agreement guaranteeing that the practice will be not destroyed, the cost-sharing money must be refunded. This is to protect the public investment.

Cost-sharing programs can benefit the pork producer in several ways. In 1980, Congress provided funding for the Rural Clean Water Program (RCWP). This program was intended to promote implementation of best management practices for agricultural NPS control. It also was an experiment to find economical ways to control NPS pollution. The RCWP set up 21 different ten year projects in watersheds around the country. Farmers who voluntarily agreed to participate in the projects were entitled to 75% of the costs or up to $50,000 for pollution control practices.

In St. Alban's Bay, Vermont, much of the money was used to construct manure holding facilities for the surrounding dairies. The holding facilities allowed the farmers to avoid spreading manure on fields in winter months when the ground was frozen, thereby reducing nutrients in runoff. Because of the cost-sharing arrangements, farmers received financial

assistance to pay for labor and other costs involved with the new manure management plan. Fertilizer and manure utilization was maximized. The surrounding community benefited from the program because of the increased recreation associated with improved water quality in the bay. Pork producers should study the cost-sharing programs available in their locale and take advantage of programs appropriate for enhancing their farm and community environments.

There are other types of programs to assist pork producers in meeting environmental regulations and reducing the pollution potential of their operations. The 1990 Farm Bill provides for loans to finance animal manure management systems. Some states offer tax incentives for manure management system installation. Minnesota, for instance, gives a personal property tax exemption for manure storage facilities having a storage capacity of 120 days or more. Information on cost sharing and other programs can be obtained from the local County Extension Office, Soil Conservation Service or from the Agricultural Stabilization and Conservation Service.

Private Regulation

Private regulation of pollution from pork production operations can take many forms, such as lawsuits based on trespass, negligence, or invasion of riparian water rights. However, by far the most popular mechanism used to regulate pork producers is the doctrine of nuisance. One prominent legal authority has said that "there is perhaps no more impenetrable jungle in the entire law than that which surrounds the word nuisance." This is true when applied to nuisance cases involving pork production operations or any other livestock operation.

There are two types of nuisances recognized by courts: public and private. A public nuisance has been defined as "an unreasonable interference with a right common to the general public." With respect to pork production operations, a public nuisance is an activity that threatens many people's health or welfare. Government agencies normally are the parties filing a lawsuit (the plaintiffs) alleging public nuisance. Many of the public regulations controlling pollution from pork production operations are derived from public nuisances.

A private nuisance is "a nontrespassory invasion of another party's interests in private use and enjoyment of property." A private nuisance is an activity "that makes it difficult for neighbors to live there." Property owners have a basic right to enjoy their property without unreasonable interference from another person's or party's activities. Private nuisance lawsuits are initiated by citizens (one or a group of plaintiffs) against the operator (defendant). Activities that cause odors, dust, flies and noise are all potential private nuisances.

Determining Nuisance. Nuisance is a common law theory in that it was developed by judges resolving disputes between conflicting parties. How judges have determined whether or not an activity is a nuisance has reflected the social and economic background at the time. The determination also varies from state to state because of differing courts and state statutes.

Judges have used a number of techniques for determining a nuisance. One method involves weighing the benefit of the activity to the general public and the injury to the plaintiff. If the activity's utility outweighs the harm done to the plaintiff, then the activity is not found to be a nuisance. Another way an alleged nuisance is determined is by judging the reasonableness of the situation by examining the particular facts involved in the case. In either case, the particular circumstances surrounding the case are crucial in determining if an activity is a nuisance. For this reason, it is difficult to predict whether an activity will be determined to be a nuisance.

The exact nature of the alleged nuisance, how it affects the plaintiff, the land uses of the plaintiff and the defendant, who was located there first, the characteristics of the surrounding community, and the consequences of finding the activity a nuisance, are some of the factors involved in a nuisance suit.

Remedies. Plaintiffs commonly seek to have the alleged nuisance stopped (enjoined) and get monetary compensation for damages. Injunctions against pork production operations usually are only partial and do not order shutting the whole operation down. The interference (odors, flies, dust, runoff, etc) may be caused by one component of the operation rather than the entire operation. Courts may restrict areas where and times when manure may be applied to land, or order an anaerobic lagoon shut down. Partial injunctions may restrict pork producers so much that they are forced to shut down.

Monetary damages may be awarded. When a nuisance is determined to be temporary, then monetary awards would compensate for losses from the time the nuisance started up to the point of the trial. Plaintiffs may be compensated for losses in rental or land use value. Because the nuisance was determined to be only temporary, the plaintiff has the right to sue again if the nuisance reoccurs.

Damages awarded because of permanent nuisances compensate the plaintiff for the total loss of the property value both in the past and the future. Once permanent damages are awarded, the plaintiff cannot sue again for the same nuisance. Special damages also may be awarded to compensate for any other costs incurred by the plaintiff, such as air conditioning to reduce the impact of the nuisance. Punitive damages may be awarded if the nuisance is of a malicious or negligent nature.

The wide variety of remedies available gives a judge flexibility in deciding nuisance cases. In Boomer v. Atlantic Cement Co., the cement factory was found to be a nuisance, but the judge refused to grant an injunction. Instead, he awarded permanent damages. In another publicized case, Spur Industries, Inc. v. Del. E. Webb Devel. Co., a cattle feedlot was enjoined and forced to move because of the odor's effects on a neighboring retirement community. Because the community was developed after the feedlot had begun operating, the developer was required to pay to move the feedlot.

Courts face some limitations when issuing remedies, however. An injunction should not be granted if the harm to the plaintiff outweighs the utility of the defendant's activity. In that case, only damages may be awarded, but not more than the defendant can handle without being forced to shut down.

Defenses to Nuisance Lawsuits. There is no one thing that will insulate pork production operations from the possibility of losing a nuisance lawsuit. Several factors may contribute. If the operation is located in a rural region, then the odor, dust and flies that result from the alleged nuisance may be an acceptable by-product of a reasonable land use within the context of the surrounding community. This is not an absolute defense against nuisance lawsuits. A pork production facility may still produce odors and other pollutants that are nuisances, even in rural areas, if the odors are greater than those typically experienced. Local land-use ordinances or zoning regulations may assist in determining if an activity is reasonable.

Pork production facilities may be determined to be unreasonable land uses. If a facility is located in a predominantly residential area, the operation may not be a reasonable land use and may be ordered to shut down.

Compliance with all applicable pollution regulations strengthens a defendant's case. Courts may take that fact into consideration when determining if an activity is a nuisance or when issuing relief from the nuisance.

"Coming to the nuisance" provides another defense against a complaint. If the plaintiff moves near an existing swine unit, the plaintiff should "assume the risks" involved with the area, including pollution from neighboring livestock operations.

Like the defense based on the characteristics of the surrounding community, a "coming to the nuisance" defense is not a guarantee of victory in a nuisance lawsuit. If an operation expands, the resulting nuisance may be intensified beyond what the neighbor was prepared to assume when he or she first moved into the area. Using "coming to the nuisance" defense may not be adequate when livestock operations are on the fringes of urban areas being developed.

Liability Insurance. The costs involved with defending a lawsuit can be substantial even if the pork producer prevails. In some, but not all cases, insurance companies are obligated to defend a producer in the event of a lawsuit. Some liability insurance policies have a "pollution exclusion" clause. Insurance companies may not intervene in cases involving pollution unless the release of the pollutants was "sudden and accidental." It is important for pork producers to be precisely aware of how their insurance policy is worded to protect them from the liability involved in manure management.

Statutory Limits to Nuisance Lawsuits. In the past ten years, all 50 states have passed "Right to Farm" (RTF) and other legislation to strengthen defenses in agricultural nuisance cases. The primary goals of RTF laws are to preserve farm land and prevent its conversion into residential uses.

Most nuisance or RTF laws attempt to strengthen defenses by stating that an agricultural activity that was not a nuisance when it began is not or is presumed not to be a nuisance as a result of change in the surrounding community. For example, if a pork production unit was in operation before the surrounding houses were built or subdivisions were developed for nonagricultural uses, then by state law the operation cannot be found a nuisance because of changed land uses. RTF laws can be limited in their applicability. Most RTF laws do not apply to facilities operated in a negligent or improper manner. Some require that livestock operations be in compliance with all applicable regulations, including environmental rules.

It is important to realize that an operation must not be a nuisance before there are changes or additions to the surrounding community. If the operation has had a number of complaints prior to the changes or additions, it may be found to be a nuisance from the moment it began operation. This would make pork production operations exempt from protection under most RTF laws.

In some states, livestock operations are still susceptible to lawsuits from landowners who have been located in the community longer than the operation. This is important because the plaintiffs in most nuisance lawsuits are neighbors of existing farmers or residents of already mixed areas. Other RTF laws specifically protect operators from nuisance actions brought by anyone.

RTF laws sometimes apply only to operations that have been in operation for some specified amount of time. This can be anywhere from one to six (Minnesota's RTF law) years. If the facility expands, it may not be covered in some states. Many RTF laws require compliance with "generally accepted agricultural management practices" (GAAMP). These are either defined in regulations or determined by courts.

In addition to attempting to codify the "coming to the nuisance" defense, many states have other mechanisms to reduce a pork producer's liability from negligence. Some RTF statutes maintain that if the defendant wins a lawsuit, then the plaintiff is required to pay the defendant's legal costs. Shifting legal fees to the plaintiff in the event of a judgement for the defendant is intended to deter neighbors from initiating a frivolous law suit. Other RTF laws provide benefits for farmers who voluntarily form agricultural districts. Districts protect agricultural property from certain local ordinances and regulations.

It should be remembered that the primary goal of most RTF legislation is to preserve farmland from being converted into other land uses, and not to protect livestock owners from nuisance lawsuits because of generated pollution. These different goals are the reason why only a few states have RTF laws that absolutely protect pork production operations.

The best protection against nuisance lawsuits and other private litigation are actions that prevent these lawsuits. Tools that may be useful for protection from nuisance lawsuits are land use controls such as zoning ordinances or agricultural districts. Land use controls affect livestock operations in ways not directly related to manure disposal. Land use controls are used in all parts of the country and are ways that local governments can restrict the uses of land. Zoning ordinances usually have two parts, a text that defines the different types of activities permitted for zones, and a map that identifies the zones.

Land use ordinances may have both positive and negative effects for farm operations. Areas zoned for agricultural activities may preserve the surrounding area for agricultural uses instead of residential use. This may reduce the potential for a nuisance suit because agricultural neighbors may be more sympathetic to the problem produced from a livestock operation. Local zoning also may benefit producers through lower real estate tax assessments and other public service taxes that accompany land development for nonagricultural uses. However, zoning ordinances may prevent farming operations from expanding, or prevent farm operators from converting their land to nonagricultural uses. Farmers may want the right to develop their property in the future, and zoning restraints may limit development options. Land use controls are controversial issues of which pork producers should be aware.

Some states' RTF laws have included a form of land use control to protect farmland from being converted to nonagricultural uses. Farmers, who create agricultural districts, are exempt from local laws that attempt to restrict agriculture, if those laws do not pertain to health or safety. Land in these districts is almost exclusively reserved for agricultural uses.

Land use controls do not provide long-term security from encroaching development. There are several ways to develop ordinances to fit the needs of a particular situation. Zoning ordinances are susceptible to change from political and economic pressures and are open to court challenges. It is important for farmers to be aware of developments in land use controls and know how those controls affect their interests.

Conclusion

Environmental laws, particularly the Clean Water Act, require larger livestock operations and any operation that is polluting a water supply to have a permit. Some states require that a manure management plan must be approved to be in compliance. Regulations that apply to pork producers when dealing with manure are diverse. Pork producers with facilities in developing areas may be concerned about odor and the potential of a nuisance lawsuit claiming their operations are a public or private nuisance. Producers who have operations in rural regions may be more concerned about preventing surface or ground water pollution. Regulations are different for areas of the country, depending on state and local laws and social and environmental conditions of the surrounding area.

The examples of laws and concepts contained in this fact sheet are intended to provide the reader with a general knowledge of environmental regulations, and should not be a substitute for legal counsel. A lawyer should be consulted when faced with any of these regulations or laws.