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# ANIMAL FEEDING FACTORIES AND THE ENVIRONMENT: A SUMMARY OF FEEDLOT POLLUTION, FEDERAL CONTROLS, AND OKLAHOMA LAW

by

*Paula M. Recker\**

THE problem of pollution by animal by-products is not a new one. Water pollution from animal manure actually predates white settlers in the Central Plains region of the United States. Early settlers experienced difficulty in locating drinkable water as a result of the activities of the large buffalo herds that drank from and wallowed in the streams. Those streams flowed richly with manure, urine, and mud, a situation acknowledged in the Pawnee Indian name for the Republican River in Nebraska whose English translation is very similar to "Buffalo Manure Creek."<sup>1</sup> Although the pollution problem caused by wandering buffalo herds has long since disappeared, other animals with the aid of human engineering have replaced a thousand-fold the pollution caused by the buffalo.

Increased public demand for more and better quality meat, eggs, and dairy products, as well as the economic necessity of reducing production costs, have resulted in radical changes in agricultural production methods. The technique developed to increase production while reducing production costs was the consolidation of feeding operations by means of the feedlot.<sup>2</sup> Utilization of the feedlot method greatly increases production on less land, thereby freeing land formerly needed for pasture for other agricultural purposes. For a feedlot operator to feed 50,000 steers on 240 acres, for a modern milking operation to include as many as 2,000 cows, or for an egg or poultry producer to handle as many as 500,000 birds is not uncommon.<sup>3</sup> According to the most recent United States Department of Agriculture data, at any one time there are 114 million head of beef cattle in the United States (12.5 million in feedlots), 20 million dairy cattle (10 million in feedlots), 50 million swine and 3 billion poultry (all in confinement facilities).<sup>4</sup>

Unfortunately, the feeding of animals within the confined area of a feedlot leads to the accumulation of vast quantities of manure. Animal feedlots represent the largest single source of solid wastes generated in the nation.<sup>5</sup> The pollution potential created by the feedlot is directly proportional to the density of the animal population confined therein. A feedlot fattened steer

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1. R. GRABER, *AGRICULTURAL ANIMALS AND THE ENVIRONMENT* 5 (1974).

2. The feedlot is a concentrated animal feeding operation for raising, feeding, and holding within a confined area beef cattle, dairy cattle, hogs, sheep, and poultry.

3. R. GRABER, *supra* note 1, at 5.

4. *Id.* at 8.

5. Over 2 billion tons are generated annually. R. KREIS, M. SCALF & J. McNABB, *CHARACTERISTICS OF RAINFALL RUNOFF FROM A BEEF CATTLE FEEDLOT* 5 (Environmental Protection Agency Technology Series No. EPA-R2-72-061, Sept. 1972).

can produce over 80 pounds of manure a day.<sup>6</sup> At the stocking rate of 280 head per acre the amount of animal wastes produced would be 22,400 pounds, or over 22 tons of manure per acre per day.<sup>7</sup>

The two major problems associated with feedlot pollution are odor and water pollution. Feedlot odor pollution has been regulated largely through the development of the law of nuisance, while feedlot water pollution is regulated primarily by state and federal water pollution control acts. This Article surveys the odor and water pollution problems caused by feedlots and provides a comprehensive summary of the law that has developed to deal with these problems. Primary emphasis is placed upon the state law of Oklahoma, with limited reference to the air and water pollution laws of other states.

## I. ODOR POLLUTION

Prior to the enactment of state and federal pollution laws a nuisance suit was the only method of pollution control available. Pursuant to the Federal Water Pollution Control Act of 1965 as amended in 1972<sup>8</sup> and the Federal Clean Air Act of 1967,<sup>9</sup> all states were required to enact air and water pollution acts. Federal and state laws, therefore, regulate the areas of air and water pollution and have preempted the importance of nuisance suits as a pollution control remedy in most areas. A nuisance action is, however, the only effective remedy in the area of odor pollution and is, therefore, still important. To set standards to regulate odor pollution under either the federal or state air pollution acts is technologically impossible at the present time.

### A. *The Odor Problem*

Odor is the most controversial, most complained about, and the most uncontrollable nuisance problem associated with feedlots. Odors emanating from livestock production are generally related to manure handling, but other potential odor sources include wet feed and the decomposition of dead animals. The two basic odors associated with feedlot manure wastes are the generally inoffensive natural aroma resulting from fresh excreta, which is not persistent and dissipates rapidly as the excreta cools, and "the offensive putrid odors of gases produced by the biological decomposition of excreta under anaerobic conditions (putrefication)."<sup>10</sup> The putrid odors from animal wastes are complex mixtures of malodorous gases<sup>11</sup> and organic compounds<sup>12</sup> that escape into the atmosphere as the manure decomposes.

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6. 2 F. GRAD, TREATISE ON ENVIRONMENTAL LAW § 7.01, at 7-8 (1974).

7. *Id.*

8. 33 U.S.C. § 1313 (Supp. V, 1975).

9. 42 U.S.C. § 1857c-5(a)(1) (1970).

10. L. SHUYLER, D. FRAMER, R. KREIS & M. HULA, ENVIRONMENT PROTECTING CONCEPTS OF BEEF FEEDLOT WASTES MANAGEMENT VIII-5 (1973) [hereinafter cited as SHUYLER].

11. Hydrogen sulfide, ammonia, and methane make up the majority of the malodorous gases. *Id.* at VIII-6.

12. "Organic compounds, which have been identified as odor producing, include aliphatic amines, methyl and ethyl mercaptans, organic acids, indole, and skatole." *Id.*

Although certain of these odorous gases which evolve from animal wastes are known to be harmful or toxic when encountered in large concentrations, the principal effect upon humans in the proximity of a feedlot is one of annoyance or nuisance. Therefore, the rules and regulations controlling livestock odors are based primarily on the concept of nuisance.

Before discussing the doctrine of nuisance and the case law that has evolved thereunder, it is important to emphasize the problems encountered in the area of odor measurement and control. Current techniques do not permit an accurate measurement of either odor intensity or odor quality since the extremely sensitive human olfactory senses can detect and identify odors at levels far lower than the levels capable of detection by the best instruments currently available. At present there are five basic approaches to odor measurement:

1. Identification of odorous gases (chromatograph)
2. Measurement of odorant concentrations (wet chemistry and correlation)
3. Measurement of odor intensity by vapor dilution (scentometer)
4. Measurement of odor intensity by liquid dilution (laboratory procedures)
5. Ranking of odor intensities by arbitrary offensiveness scales.<sup>13</sup>

None of these approaches has been entirely satisfactory. The first and second methods merely identify the presence of odor-producing gases and measure their concentrations, but do not measure the intensity or quality of the odor. The third, fourth, and fifth methods of odor measurement are organoleptic in nature<sup>14</sup> and utilize the human nose as the detector. The problem with these methods is primarily the lack of objectivity: each individual will have varying impressions and sensitivities as to what constitutes an objectionable odor. The two most popular methods of odor detection and measurement are the third method, vapor dilution, and the fourth method, liquid dilution. These methods have been the subject of much research by federal and state officials which has resulted in guidelines that will be useful to a researcher or lawyer involved in an odor nuisance suit.<sup>15</sup>

### B. *State Air Pollution Laws*

*The Oklahoma Clean Air Act of 1967.*<sup>16</sup> An individual may file a complaint only with the Oklahoma State Department of Health alleging a violation of any rule or regulation promulgated under the Act. The Air Pollution Control Director must make an investigation, hold a hearing, and

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13. Texas Agricultural Extension Service, Agricultural Engineering Newsletter, May 29, 1975, at 5.

14. *Id.*

15. These results are discussed in text accompanying notes 78-89 *infra*.

16. OKLA. STAT. ANN. tit. 63, §§ 2001-08 (1973). This Act has not been important in regulating feedlot odor pollution in Oklahoma due to the lack of technology to measure odor quality and set standards for enforcement. Therefore, odor pollution complaints were brought under state laws pertaining to nuisance. Should the technology to measure odor quality and intensity be developed, however, this Act may become an effective means of odor regulation.

bring suit against the alleged violator if the alleged violation is not eliminated.

*The Texas Air Control Board.* Texas has been significantly more active than Oklahoma in enforcing its state air pollution laws<sup>17</sup> against feedlot operators. The Texas Air Control Board requires feedlots with more than 1000-head capacity to obtain both construction and operating permits. A construction permit must be obtained before any actual work is done on the facility. After construction has been completed, and feedlot operation commenced, the operator has sixty days to apply for an operating permit. Those feedlots must also comply with certain special provisions for feedlot waste management to retain their operating permit.<sup>18</sup> The Texas Air Control Board is currently considering a new requirement that would require *all* new feedlots, regardless of size, that plan to construct a new facility within one mile of a city limit to obtain construction and operating permits.<sup>19</sup>

### C. *The Doctrine of Nuisance*

Next to pollution of surface waters, odor nuisances account for the largest number of complaints and legal actions lodged against feedlots. The doctrine of nuisance acts as a restriction on the right of a feedlot operator to use his property as he pleases. If the conduct of a feedlot operation substantially and unreasonably interferes with the use and enjoyment of a neighboring landowner's property or interferes with the health, safety, and welfare of others, the feedlot operator may be adjudged guilty of maintaining a nuisance.

While liability for nuisance results from conduct, nuisance itself is a condition. If the condition interferes with the comfortable use and enjoyment of private property, it is called a private nuisance. If the condition affects the comfort, health, or safety of a substantial number of people, it may be a public nuisance.<sup>20</sup> The same conduct may give rise to both a private and a public nuisance suit.

*The Private Nuisance Action.* In Oklahoma the term "private nuisance" refers to an actionable interference with the use and enjoyment of land belonging to a single individual or definite number of persons.<sup>21</sup> There is a recognized duty on a landowner not to use property in a manner that will unreasonably interfere with the use and enjoyment of another's property. As a result of this principle, the conduct of an otherwise lawful business may constitute a private nuisance.<sup>22</sup>

Private nuisance suits against feedlot operators in Oklahoma have been few, and the two suits that were brought against feedlot operators between

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17. TEX. REV. CIV. STAT. ANN. art. 4477-5 (1974).

18. J. SWEETEN, FEEDLOT POLLUTION CONTROL GUIDELINES 7 (1974).

19. Texas Agricultural Extension Service, Agricultural Engineering Newsletter, May 1975, at 1.

20. Note, "Ill Blows the Wind that Profits Nobody": Control of Odors from Iowa Livestock Confinement Facilities, 57 IOWA L. REV. 451, 454 (1971).

21. Hummel v. State, 69 Okla. Crim. 38, 99 P.2d 913 (1940).

22. Summers v. Acme Flour Mills Co., 263 P.2d 515 (Okla. 1953).

1969 and 1974 were unsuccessful.<sup>23</sup> Due to this lack of nuisance suits brought against feedlot operators in Oklahoma, reference will be made herein to nuisance suits initiated in other states.

*Burden of Proof.* A livestock feeding operation, when operated in a lawful manner, is not a nuisance per se. Therefore, in a nuisance action the plaintiff must show that the method of maintenance and operation of the feedlot interferes with the comfortable use and enjoyment of plaintiff's property. The determination of whether the precise degree of discomfort or interference that results is sufficient to constitute a nuisance must be decided upon the basis of reasonableness.

Noxious odor has long been recognized as an unreasonable interference with the use and enjoyment of property.<sup>24</sup> In a feedlot pollution case the source of the odor is seldom at issue. Therefore, the plaintiff must demonstrate that the odor constitutes an unreasonable and substantial interference with the use and enjoyment of his property. The plaintiff may satisfy his burden of proof on this issue by using testimonial evidence that the odor makes it impossible to stay or sleep in plaintiff's farmhouse,<sup>25</sup> that the plaintiff moved from the property as a result of the odor's causing him discomfort and having an adverse effect on his health,<sup>26</sup> that offensive and nauseating odors and flies fill the air in and about plaintiff's house,<sup>27</sup> that the odor is gagging,<sup>28</sup> or that the odor is disagreeable and offensive.<sup>29</sup> The odors need not be harmful or unwholesome; it is sufficient if they are offensive or produce the consequences of inconvenience or discomfort or both, that impair the comfortable enjoyment of property by persons of ordinary sensibility.<sup>30</sup> Due to the nature of an action for nuisance, counsel may properly request the judge or jury, accompanied by counsel for both sides, to visit plaintiff's property and independently assess the nature and degree of the alleged interference with plaintiff's use and enjoyment of the property.<sup>31</sup>

Location is inherently a factor in any odor nuisance question involving the relationship between a feedlot and the uses of adjacent property. Naturally, considerable attention will be paid to factors relating to the distances involved, priority of uses, and the character of the locality.<sup>32</sup> The proximity of the feedlot, priority of use, and character of the locality may aid either the

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23. A conversation with Mr. John Gibson, Region VI, Environmental Protection Agency, Oct. 23, 1975, revealed the presence of these unreported decisions.

24. See F. GRAD, *supra* note 6, § 7.03, at 7-41.

25. Patz v. Farmegg Prods., Inc., 196 N.W.2d 557 (Iowa 1972); Trottnow v. Kullmer, Civ. No. 23482 (Iowa Dist. Ct., Aug. 3, 1967).

26. Trottnow v. Kullmer, Civ. No. 23482 (Iowa Dist. Ct., Aug. 3, 1967).

27. Tinsley v. Monson & Sons Cattle Co., 2 Wash. App. 675, 472 P.2d 546 (1970); Edwards v. Black, Civ. No. 15235-J28-170 (Iowa Dist. Ct., Nov. 5, 1968).

28. Patz v. Farmegg Prods., Inc., 196 N.W.2d 557 (Iowa 1972).

29. Meat Producers, Inc. v. McFarland, 476 S.W.2d 406 (Tex. Civ. App.—Dallas 1972, writ ref'd n.r.e.).

30. Paulson, *Commercial Feedlots—Nuisance, Zoning and Regulation*, 6 WASHBURN L.J. 493, 493-96 (1967).

31. Evers v. Thomas, 273 Ala. 159, 137 So. 2d 39 (1962); Bower v. Hog Builders, Inc., 461 S.W.2d 784 (Mo. 1970); F. GRAD, *supra* note 6, § 7.03, at 7-41.

32. Note, *supra* note 20, at 459.

plaintiff<sup>33</sup> or the defendant<sup>34</sup> on the nuisance issue.

*Defenses.* The defendant feedlot operator has the burden of proving that the maintenance of lawful commercial activity is a reasonable use of his land. When the defendant can demonstrate that the locality is primarily agricultural and that he maintained the feedlot in a modern and sanitary manner, a successful defense may be established.<sup>35</sup> Defendant's case will be stronger if he can also show that the area was zoned for agricultural use,<sup>36</sup> or that there were no zoning laws or restrictive covenants prohibiting the use of land for feedlot purposes.<sup>37</sup> The fact that the defendant was a prior user may be a strong factor in his favor because courts do not tend to look favorably upon a plaintiff's case when he "came to the nuisance."<sup>38</sup>

Two important state court cases in which the defendants sustained their burden of proof to defeat plaintiff's action are *Edwards v. Black*<sup>39</sup> and *Crandall v. Biergans*.<sup>40</sup> In *Edwards v. Black*, a 1968 Iowa case, the plaintiffs alleged that a commercial feedlot in a rural area was responsible for offensive odors, flies, and noise adversely affecting properties of nineteen adjacent parties. The decision in favor of the defendant was reached primarily on the basis of location. The character of the surrounding area, predominantly rural and devoted to agricultural purposes, was the most important factor. Attention was also given to the fact that none of the plaintiffs' residences were proximate to defendant's feedlots, and that defendant employed the most approved and skilled methods in the construction, operation, and maintenance of the feedlots. The jury found on the basis of these factors that no nuisance existed and that the feedlot operation was a reasonable use of property in that locality.

In *Crandall v. Biergans*, a 1972 Michigan case, an odor suit with a request for an injunction and \$180,000 damages was brought against Biergans' swine feedlot by former neighbors. Biergans' main defense was that he was using the best technology and management practices available to keep down odors. The judge ruled in favor of the defendant and noted:

- (1) The area involved is zoned agricultural and is a farming area.
- (2) The method of swine-raising is not unique to the defendant, but is a method used by most commercial producers of swine.
- (3) The defendant was not negligent—he was operating the feedlot in a husband-like manner and odor control methods that were economically feasible were used.

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33. *Patz v. Farmegg Prods., Inc.*, 196 N.W.2d 557 (Iowa 1972); *Warden v. Sinning*, Civ. No. 30403 (Iowa Dist. Ct., May 25, 1970); *Trottnow v. Kullmer*, Civ. No. 23482 (Iowa Dist. Ct., Aug. 3, 1967).

34. *Edwards v. Black*, Civ. No. 15235-J28-170 (Iowa Dist. Ct., Nov. 5, 1968); *Crandall v. Biergans*, Civ. No. 844 (Mich. Cir. Ct., Feb. 14, 1972).

35. *Edwards v. Black*, Civ. No. 15235-J28-170 (Iowa Dist. Ct., Nov. 5, 1968); *Dill v. Excell Packing Co.*, 183 Kan. 513, 331 P.2d 539 (1958); *Crandall v. Biergans*, Civ. No. 844 (Mich. Cir. Ct., Feb. 14, 1972).

36. *Crandall v. Biergans*, Civ. No. 844 (Mich. Cir. Ct., Feb. 14, 1972).

37. *Edwards v. Black*, Civ. No. 15235-J28-170 (Iowa Dist. Ct., Nov. 5, 1968); *Dill v. Excell Packing Co.*, 183 Kan. 513, 331 P.2d 539 (1958).

38. *Dill v. Excell Packing Co.*, 183 Kan. 513, 331 P.2d 539 (1958).

39. Civ. No. 15235-J28-170 (Iowa Dist. Ct., Nov. 5, 1968).

40. Civ. No. 844 (Mich. Cir. Ct., Feb. 14, 1972).

- (4) The raising of swine in substantial numbers can't be done in an odorless manner as a practical matter.
- (5) In order for the operation to be considered a nuisance, the plaintiffs had to establish that the defendants were using the property in a wrongful or unreasonable manner, or show injury to themselves, their property, or enjoyment of it.<sup>41</sup>

Declining to issue an injunction or order the defendant to move his operation "as long as the unit [was] run in a husband-like manner and odor control products or devices that [were] economically feasible [were] used,"<sup>42</sup> the judge emphasized that plaintiffs were unable to prove that the defendant was using his property in an unreasonable manner or that significant injury resulted to the value or enjoyment of plaintiffs' property.<sup>43</sup> The decision in *Crandall* is important because a solid precedent that farm odors in an agricultural area are not nuisances is provided; the ruling held, in effect, that some odors are natural and cannot be considered air pollution or a nuisance if good sanitation and husbandry are used.

Another important consideration to a defendant's case is the extent to which he can show compliance with an existing permit requirement. The Oklahoma Feed Yards Act, providing that "[a]ny feed yards operated in compliance [with this Act] shall be deemed to be prima facie evidence that a nuisance does not exist," would be of great importance to the defendant in a nuisance action.<sup>44</sup> In essence, this provision shifts the burden of proof to the plaintiff. As a practical matter, if the issue of whether a given feedlot operation constitutes a nuisance is a very close one, this burden of proof may be an important determinant in the outcome of the lawsuit.<sup>45</sup>

Despite the defendant's introduction of evidence on all the points discussed above, a successful defense still may not result.<sup>46</sup> A nuisance has been held to exist even where a chicken feedlot was operated with due care in a small, concentrated location and in a rural area.<sup>47</sup> The defendant's use of an elaborate and modern disposal system, at a cost of over \$100,000, has been held not sufficient to satisfy the defendant's burden of showing that the interference with plaintiff's use and enjoyment of his property was reasonable.<sup>48</sup> Introduction of evidence that the defendant employed the most scientific method available for handling manure has been held not to rebut the plaintiff's showing of an unreasonable interference with the use and enjoyment of his land.<sup>49</sup> However, the defendant's introduction of evidence

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41. *Id.*

42. *Id.*

43. *Id.*

44. OKLA. STAT. ANN. tit. 2, § 9-210 (1973). The Kansas feedlot law, KAN. STAT. ANN. § 47-1505 (1973), contains a similar provision. M. PAINE, LEGAL ASPECTS OF ODOR AND DUST FROM FEEDLOTS 1700.2 (OSU Extension Facts No. 1700, 1972). The Oklahoma Feed Yards Act will be discussed more fully later in this Article. See text accompanying notes 110-125 *infra*.

45. M. PAINE, *supra* note 44, at 1700.2.

46. See F. GRAD, *supra* note 6, at 7-42.

47. Valley Poultry Farm, Inc. v. Preece, 406 S.W.2d 413 (Ky. 1966).

48. Gerrish v. Wishbone Farm of New Hampshire, Inc., 108 N.H. 237, 231 A.2d 622 (1967).

49. Patz v. Farmegg Prods., Inc., 196 N.W.2d 557 (Iowa 1972).



to show the reasonableness of his conduct through the methods he employed can mitigate the damages obtained by the plaintiff.<sup>50</sup>

*The Public Nuisance Action.* A public nuisance involves an actual or potential interference with or injury to the public as a whole rather than particular individuals.<sup>51</sup> A "public nuisance is not necessarily one affecting the government or the entire community of the state, but it is public if it affects the surrounding community generally or the people of some local neighborhood."<sup>52</sup> The essence of public nuisance is the common effect upon people similarly situated as members of the public. Oklahoma defines "public nuisance" as "one which affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon the individuals may be unequal."<sup>53</sup>

A public nuisance, as a wrong against the community at large, is subject to abatement or indictment, or both, to protect the health, safety, and welfare of the public.<sup>54</sup> Since the action brought is either an equitable action for abatement<sup>55</sup> or an indictment carrying criminal sanctions,<sup>56</sup> a greater burden of proof is required to establish liability for a public nuisance than for a private nuisance. The additional burden is proof of the public nature of the harm.<sup>57</sup>

Noxious odors and offensive smells may constitute a public nuisance in Oklahoma when they create a real and substantial injury or danger to the health, safety, comfort, or property of the public.<sup>58</sup> The Oklahoma State Department of Health<sup>59</sup> and municipal authorities<sup>60</sup> have the right to abate a public nuisance that is a threat to public health.<sup>61</sup> Although this authority exists, public nuisance actions have not played an important role in Oklahoma to combat odor nuisance. No public nuisance suits have been brought against feedlot operators in Oklahoma, although public nuisance actions have been maintained successfully in other states by a public officer or body. In *Hardin County v. Gifford Feedlots, Inc.*,<sup>62</sup> a 1968 Iowa district court case, a county board of supervisors brought an action to enjoin a cattle feedlot operation as a public nuisance on the basis of complaints from people in the unincorporated village of Gifford, Iowa. The injunction was granted since the creation and maintenance of the feedlot was held unreasonable and constituted a nuisance to the people of Gifford. Strong emphasis was given to the proximity of the feedlot to public property and homes, the number of

50. *Id.*

51. W. PROSSER, HANDBOOK OF THE LAW OF TORTS 585 (4th ed. 1971).

52. *Finkelstein v. City of Sapulpa*, 106 Okla. 297, 234 P. 187 (1925).

53. OKLA. STAT. ANN. tit. 50, § 2 (1962).

54. *Id.* § 8.

55. *Id.* § 11.

56. *Id.* § 9.

57. See Note, *supra* note 20, at 464.

58. *Boudinot v. State ex rel. Cannon*, 340 P.2d 268 (Okla. 1959); *Kenyon v. Edmundson*, 80 Okla. 3, 193 P. 739 (1921).

59. OKLA. STAT. ANN. tit. 50, § 11 (1962).

60. *Id.* § 16.

61. *Id.* § 2.

62. Civ. No. 62-160 (Iowa Dist. Ct., Dec. 23, 1968).

people affected, the uniformity of the effect, the absence of other sources of offensive odor, and the fact that the village was established long before the feedlot.

In Oklahoma a private litigant may bring a civil suit to obtain private relief for a public nuisance if he can establish, in addition to the public nuisance, that he suffered damage specifically injurious to him, as distinguished from the injury suffered by the public at large.<sup>63</sup> The specific injury must be different in kind and not merely in degree from that suffered by the general public.<sup>64</sup>

Private actions based on public nuisance do not, however, play a major role in the private regulation of feedlot pollution. For the plaintiff to meet the additional requirement of showing "particular damage" will often prove too difficult even when evidence of "unreasonable interference with the enjoyment of property" is easily obtainable.<sup>65</sup> One example of an unsuccessful private suit based on a public nuisance was *Garland Grain Co. v. D-C Home Owners Improvement Ass'n*,<sup>66</sup> a 1965 Texas court of civil appeals suit for a mandatory injunction. The court denied the plaintiffs a permanent injunction to abate the odor nuisance when a question of public health was not involved and when the plaintiffs had an adequate remedy at law for damages. Further, the plaintiffs were not entitled to an injunction on the allegation that the pollution of the creek was a public nuisance, since the duty to prohibit pollution of public waters is vested exclusively in the state and the state was not a party to the suit; the court viewed plaintiffs' suit as an action to abate a private nuisance calling for a determination of the rights of riparian owners. The court noted that the defendant's feedlot was located in a rural area in which many of the plaintiffs' cattle also caused obnoxious odors, and that the cessation of defendant's lawful business would result in harm to the public as well as to the defendants.

As indicated in *Garland Grain*, the difference between a private nuisance and a public nuisance may be critical in an injunctive action. Courts are often hesitant to issue an injunction against a lawful business, such as the operation of a feedlot, when the safety or health of the public is not involved and when damages will compensate the neighboring property owner for the interference with the use and enjoyment of property.

Special circumstances, however, may cause reliance on a public nuisance theory by a private litigant to be successful. Such a situation was presented in *Spur Industries, Inc. v. Del E. Webb Development Co.*<sup>67</sup> The real estate developer purchased land in an agricultural area and built an extensive retirement community development adjacent to the defendant's feedlot operation. The developer was aware of the feedlot operation, but continued to expand his development southward until the odor and flies began to interfere substantially with the lives of the residents who had purchased lots in the

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63. OKLA. STAT. ANN. tit. 50, § 10 (1962).

64. *McKay v. Enid*, 26 Okla. 275, 109 P. 520 (1910).

65. See F. GRAD, *supra* note 6, at 7-39.

66. 393 S.W.2d 635 (Tex. Civ. App.—Tyler 1965, writ ref'd n.r.e.).

67. 108 Ariz. 178, 494 P.2d 700 (1972).

southern end of the development. The plaintiff developer sued on a theory of public nuisance, alleging as his special injury the interference with his economic interest of selling more lots. The court was persuaded by the plight of the purchasers of the lots, who were not parties to the action but who, in the court's view, could have maintained successful public or private nuisance suits on their own behalf to abate the nuisance of odor and flies created by the feedlot operation. Upholding the action for public nuisance in *Spur Industries*, and granting an injunction against the feedlot operator because of the damage to the people who purchased homes in plaintiff's development, the court remanded the case to the trial court to determine the defendant's damages in having to remove a lawful business operation as a result of the developer's "bringing the people to the nuisance," and ordered the plaintiff to pay the damages determined since plaintiff's activities in taking advantage of lower land values in a rural area necessitated the feedlot operator's removal. The court limited the relief provided to a situation where a developer has, with foreseeability, brought into a previously agricultural area the population which makes the granting of an injunction necessary against a lawful business and for which the business has no adequate relief.

Where a "coming to the nuisance" is involved, the *Spur Industries* case may prove to be sound development in the law of public nuisances. The decision furnishes a solution that balances the equities involved: the interests of the public are protected when an injunction is granted; the feedlot operator who has committed no wrong is compensated for the move necessitated by the injunction; and the developer who created the situation is ordered to pay damages to the feedlot operator who is inconvenienced.

*Remedies.* In a private nuisance action the complaining party may ask for an injunction or damages, or both. In a public nuisance case, as discussed above, the plaintiff also may seek a criminal sanction, but the incidence of this is rare. Therefore, the two major remedies of injunction and damages will be the basis for the following discussion.

*Injunctive Relief.* Attempts to procure an anticipatory injunction against the construction and operation of a feedlot have not been successful.<sup>68</sup> However, injunctive relief generally is available against an odor nuisance caused by the current operation of a feedlot. The injunctive relief requested may be either to halt or to modify a feedlot operation. The court may order modification of the defendant's feedlot if abatement of the nuisance would result and the interference with plaintiff's property would cease;<sup>69</sup> but when the plaintiff can show that the facility cannot be modified or operated in a manner that will not interfere with the use and enjoyment of his property, an injunction against the operation of the feedlot may be granted.<sup>70</sup>

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68. *Moody v. Lundy Packing Co.*, 7 N.C. App. 463, 172 S.E.2d 950 (1970).

69. *Spencer Creek Pollution Control Ass'n v. Lone Feedlots*, No. 96125 (Ore. Cir. Ct., Aug. 25, 1970).

70. *Patz v. Farmegg Prods., Inc.*, 196 N.W.2d 557 (Iowa 1972). In *Hardin Co. v. Gifford Feed Lots, Inc.*, Civ. No. 62-160 (Iowa Dist. Ct., Dec. 23, 1968), the court found the odors from defendant's feedlots to be a public and private nuisance that could not be abated by the measures proposed by defendant. A permanent injunction was is-

A greater showing of harm to the plaintiff usually is required for an injunction to be granted than is necessary for the granting of damages. The court also will weigh the relative hardship likely to result to the defendant if the injunction is granted and to the plaintiff if the injunction is denied. Additionally, the court may consider the interests of third parties in deciding whether an injunction will be issued. Additional factors and circumstances which have been considered significant in granting or denying a request for a permanent injunction include the right of people to protection in the comfortable occupation of their property, priority of use, the defendant's economic investment in the feedlot facility, the lack or availability of viable alternatives to abatement, the location of the feedlot, the character of the surrounding area, and the plaintiff's recovery of damages.<sup>71</sup> Needless to say, an action for contempt may be brought to enforce a previously granted injunctive abatement order if the defendant fails to comply.

*Damages.* In Oklahoma,<sup>72</sup> as in most states,<sup>73</sup> the plaintiff may be entitled to seek both actual and punitive damages for an odor nuisance created by a feedlot operation. The amount of actual damages that may be awarded to the plaintiff will depend largely upon the determination by the court of whether the nuisance created by the feedlot operation is temporary<sup>74</sup> or permanent.<sup>75</sup> In addition to actual damages, the plaintiff may

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sued closing down the facilities. In *Trottnow v. Kullmer*, Civ. No. 23482 (Iowa Dist. Ct., Aug. 3, 1967), a permanent injunction was issued against the defendant's feedlot operation when the modifications ordered previously by the court did not abate the nuisance.

71. See Note, *supra* note 20, at 476.

72. *City of Shawnee v. Bryant*, 310 P.2d 754 (Okla. 1957).

73. See, e.g., *Ozark Poultry Prods., Inc. v. Garmen*, 251 Ark. 389, 472 S.W.2d 714 (1971); *Patz v. Farmegg Prods., Inc.*, 196 N.W.2d 557 (Iowa 1972); *Meat Producers, Inc. v. McFarland*, 476 S.W.2d 406 (Tex. Civ. App.—Dallas 1972, writ ref'd n.r.e.).

74. A temporary nuisance is one which can be corrected by the feedlot operator's making certain basic changes in his method of operation or in the facility itself. A feedlot operator sued for a temporary nuisance is liable only for damages suffered in the past. If the nuisance is not corrected, the operator may be sued again. See M. PAINE, *supra* note 44, at 1700.2. The damages that may be awarded to the plaintiff are out-of-pocket expenses incurred as a result of the nuisance, such as medical expenses and additional living expenses occasioned by the odors, *Trottnow v. Kullmer*, Civ. No. 23482 (Iowa Dist. Ct., Aug. 3, 1967), plus damages for the interference with the use and enjoyment of the plaintiff's land. *Valley Poultry Farm, Inc. v. Preece*, 406 S.W.2d 413 (Ky. 1966); *Bower v. Hog Builder's, Inc.*, 461 S.W.2d 784 (Mo. 1970).

75. A permanent nuisance is one which the court determines is not readily correctible and will be reasonably certain to continue indefinitely, and in which damage occurs to the land itself. All damages due the plaintiff, both past and future, may be determined by the jury and awarded in one lawsuit. See M. PAINE, *supra* note 44, at 1700.2. The damages flowing from a permanent nuisance are called permanent damages and may be measured by the depreciation in market value for the highest use of the land. *Patz v. Farmegg Prods., Inc.*, 196 N.W.2d 557 (Iowa 1972); *Meat Producers, Inc. v. McFarland*, 476 S.W.2d 406 (Tex. Civ. App.—Dallas 1972, writ ref'd n.r.e.).

Permanent damages have been awarded in two recent cases. In *Meat Producers, Inc. v. McFarland*, *supra*, the court held that odors from a cattle feedlot amounted to a nuisance justifying recovery of permanent damages to the plaintiff's land. Although the defendant's feeding operations had been suspended at the time of trial because of market conditions and no interference with plaintiff's property was occurring at that time, the court held that the damage to the plaintiff's land was permanent because of evidence supporting the assumption that the defendant's operations could be resumed at any time. The measure of damages was the reduction in market value for the highest use of the land, not limited by the actual use of the land. Plaintiff recovered damages for the reduction in market value of his land as a residential tract even though he had used the land for agricultural purposes.

receive punitive damages for the nuisance created by the defendant.<sup>76</sup> Generally, to allow punitive damages there must be evidence of malice or willful, wanton, or reckless conduct by the defendant which led to the plaintiff's injury. As a practical matter, punitive damages are seldom awarded in a nuisance action. A notable exception was the decision in *Bower v. Hog Builders, Inc.*<sup>77</sup> in which the court awarded \$46,200 in actual damages and \$90,000 in punitive damages to the plaintiffs. The court considered several factors in awarding damages, including the plaintiffs' having lived on their farms for over twenty years when defendants purchased adjoining property and constructed feedlot facilities with a capacity of 3,800 head of swine. The damage to plaintiffs' property occurred on several occasions when lagoons defendant had built to store manure overflowed and spread wastes across plaintiffs' property, through their stock watering ponds, and into a creek. The court concluded that the punitive damages assessed against the defendant were warranted and were not excessive. Evidence presented by plaintiffs supported the awarding of punitive damages: the defendant allowed open septic lagoons to overflow on plaintiffs' land, killing vegetation and fish in plaintiffs' ponds; plaintiffs' cattle were unable to drink from the contaminated ponds; plaintiffs' drinking wells were contaminated and all household water had to be boiled; defendant allowed a dead hog to decompose lying across the road from one plaintiff's house; the odor from the feedlot substantially interfered with plaintiffs' enjoyment of their property; and the value of plaintiffs' property was substantially diminished.

#### D. Trends

An important development in the law of public nuisance was discussed earlier in *Spur Industries, Inc. v. Del E. Webb Development Co.*,<sup>78</sup> in which a "coming to the nuisance" by the plaintiff was involved. The result reached in that case, allowing the injunction against the defendant while ordering the plaintiff to pay costs of moving defendant's feedlot operation, furnishes a solution that does not allow an earlier use of the land to bind the future. The interests of the public were protected while compensating the defendant.

An important development in the law of odor nuisance is in the area of odor measurement.<sup>79</sup> The two most popular methods of odor detection and measurement are vapor and liquid dilution.<sup>80</sup> In brief, vapor dilution is a method of measuring odor intensities expressed as dilutions to threshold (Dt). This is defined as the number of times that odorous air must be diluted with odor-free air to reach the point where the odor is barely

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In *Patz v. Farmegg Prods., Inc.*, *supra*, the court awarded permanent damages for the odor nuisance created by defendant's chicken feeding facility because it concluded the nuisance was reasonably certain to continue in the future and that it was not abatable.

76. Punitive damages extend beyond compensation for loss to impose a penalty upon the defendant who is liable for the nuisance.

77. 461 S.W.2d 784 (Mo. 1970).

78. 108 Ariz. 178, 494 P.2d 700 (1972).

79. Texas A&M University has been active in conducting experiments in odor measurement that will be of importance in future lawsuits involving odor pollution.

80. See text accompanying notes 13-16 *supra*.

perceptible. Two commercially available vapor dilution devices are the scentometer and the dynamic olfactometer, both of which operate on the principle of blending odorous and non-odorous gas streams at known ratios.<sup>81</sup> Several states have enacted odor intensity standards based on vapor dilution measurements of odors.<sup>82</sup> Liquid dilution of odor intensity involves diluting an odorous liquid or solid substance with odor-free water until the odor threshold is reached. Although this method is usually precise and repeatable, its value rests on the necessary assumption that odors emitted by the diluted waste material in the laboratory are representative of odors emitted under field conditions.<sup>83</sup>

Both methods utilize the human nose as the detector, and, therefore, considerable variation due to observer sensitivities and fatigue is common. For this reason, olfactory measurement of odor levels in ambient air or from laboratory samples is usually made by an odor profile panel.<sup>84</sup> The odor panel size is usually five to ten persons. Odor panels may consist of trained or untrained panelists, depending mainly upon the purpose of the measurements. For nuisance suits in which differentiation between "reasonable" and "unreasonable" odor levels is required, randomly selected, untrained observers generally should be used.<sup>85</sup> To determine odor thresholds or to evaluate odor control techniques for research purposes, the use of a panel of trained observers who have been specifically selected is essential because they are good discriminators and communicators of odor phenomena.<sup>86</sup>

A recent case in Texas utilized the vapor dilution technique for measuring odor intensity, and provided the first legal definition in any state of acceptable odor intensity. In *City of El Paso v. Hot Wells Cattle Co.*<sup>87</sup> a cattle feedlot, operated inside the city limits of El Paso for fifteen years, was closed by a district court decree on May 20, 1975. A significant feature of the final judgment was the stipulation of a *maximum permissible odor intensity* of seven dilutions to threshold (7Dt) at the property line, as measured by use of a scentometer.<sup>88</sup> This case and the reported adoption by seven states<sup>89</sup> of odor intensity standards allowable at property lines based on vapor dilution measurement marks a trend in the acceptability of odor measurement techniques and their use in courts of law.

#### E. *Avoiding a Nuisance Suit*

Avoiding an odor nuisance suit is primarily a matter of prevention by minimizing odors. Although complete odor elimination is not currently

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81. See Agricultural Engineering Newsletter, *supra* note 13, at 6.

82. *Id.*

83. *Id.*

84. *Id.*

85. *Id.*

86. *Id.* at 6-7.

87. Civ. No. 75-4433 (Tex. Dist. Ct., May 20, 1975).

88. Texas Agricultural Extension Service, Agricultural Engineering Newsletter, Sept. 1975, at 3.

89. *Id.*

within technical and economic limits, there are several principles that may be used to help minimize odor complaints.

The most important method to avoid a nuisance suit is in selecting the site for the feedlot: locate a livestock operation such that close proximity to residential areas is avoided and no zoning laws are violated. Although no maximum distances have been established beyond which complaints are not valid, avoidance of an urban area is desirable. Thus a good location is at least one mile from housing developments and at least one-half mile from neighboring residences. Wind direction, topography, and climate are important in most areas because of the effects of moisture and temperature on odor generation and spreading.<sup>90</sup> Other important odor control techniques include keeping feeding areas and animal pens dry, the appropriate selection of manure storage and treatment devices, an orderly scheme of runoff collection and manure handling, prompt dead animal disposal, and use of odor control chemicals.

#### F. Zoning Laws

Oklahoma is an agricultural state composed primarily of rural areas, two major urban areas, Tulsa and Oklahoma City, several smaller cities of less than 100,000 population, and many small municipalities. Thus, zoning has not yet played an important role in regulating feedlot enterprises in Oklahoma. Zoning has been of importance in other more populous states, most notably Arizona, Iowa, Michigan, and Texas. However, as urban development spreads over former agricultural lands and concentrated livestock operations come into direct conflict with urban environmental values, zoning will become a major political factor in the urban community.

Zoning is a form of administrative action which enables local governing units to separate an area into districts and regulate the use of land within those specific areas. The purpose of zoning is to regulate uses of private property in the interest of serving the public peace, odor, health, safety, comfort, and general welfare of the community through the police powers of the state. A zoning body has wide discretion in enacting zoning ordinances, but such ordinances must be reasonable and not arbitrary or discriminatory as applied.

Zoning boards in Oklahoma will be faced with three major situations that must be considered in enacting zoning regulations: (1) urban development that encroaches upon established feeding operations; (2) the unwise development of new livestock enterprises on rapidly shrinking agricultural areas; (3) the livestock enterprise that is allowed to remain as a nonconforming use within a newly zoned area. The zoning board should deal with these situations in a manner that will further the public interest while protecting the agricultural sector.

The existence of zoning regulations has been an important factor in several odor nuisance cases in other states. Cases in which the fact that the

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90. R. MINER, ODORS FROM CONFINED LIVESTOCK PRODUCTION 3 (Environmental Protection Agency Technology Series No. EPA-660/2-74-023, April 1974).

area was zoned for agricultural use was important to the outcome of the suit include *Spur Industries, Inc. v. Del E. Webb Development Co.*<sup>91</sup> and *Crandall v. Biergans*.<sup>92</sup> In *Hardin Co. v. Gifford Feedlots, Inc.*<sup>93</sup> and *Winnebago Co. v. Fluegel*<sup>94</sup> the fact that the defendants were in violation of zoning laws was an important factor in establishing the plaintiffs' cases.

## II. WATER POLLUTION

Water pollution is defined as the addition of any substance into a body of water, either surface or subsurface, which interferes with another person's reasonable use of that water. A greater awareness of environmental quality has prompted stricter demands for the control of water pollution. Both state and federal regulations now prohibit the pollution of public waters.

Water pollution associated with feedlots results primarily from rainfall runoff which comes into contact with manure and carries high concentrations of oxygen demanding materials, solids, nutrients, and disease organisms into surface waters and sometimes into the subsurface water. The dissolved organic matter from accumulated wastes gives feedlot runoff a very low dissolved oxygen content, which in turn can lead to a dangerous oxygen depletion in the lakes and streams into which the runoff eventually empties. The widely used gauge of oxygen depletion is the BOD (biochemical oxygen demand) measured in parts per million (ppm).<sup>95</sup> A comparison of the BOD of feedlot runoff with water in other conditions will demonstrate the extent of the oxygen depletion. Water having a BOD of 3 ppm is regarded as clean while water having a BOD of as little as 5 ppm is regarded as suspect; public health officials become concerned when runoff entering a stream exceeds 20 ppm.<sup>96</sup> The BOD for feedlot runoff usually varies between 100 and 10,000 ppm; pigpen runoff is even higher and may reach levels of 50,000 ppm.<sup>97</sup>

The serious danger to fish and other aquatic life with this degree of oxygen depletion has been proven. In 1967 the Federal Water Pollution Control Administration reported that of the eight major fish kills that year alone, three were due to manure runoff.<sup>98</sup> In late 1971 or early 1972 a serious fish kill occurred in Fulton County, Indiana, as a result of runoff from Tinkey Farms, Inc., and another fish kill occurred in Nebraska in January 1974 as a result of runoff from the feedlot of American Beefpackers, Inc. of Omaha.<sup>99</sup>

The runoff from a feedlot is high in nitrogen, phosphorus, magnesium, potassium, and sodium. The presence of such chemicals and their compounds accelerates the entrophication or natural aging process of rivers and

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91. 108 Ariz. 178, 494 P.2d 700 (1972).

92. Civ. No. 844 (Mich. Cir. Ct., Feb. 14, 1972).

93. Civ. No. 62-160 (Iowa Dist. Ct., Dec. 23, 1968).

94. Ch. No. G-19425 (Ill. Cir. Ct., Jan. 31, 1970).

95. See F. GRAD, *supra* note 6, § 7.01, at 7-13.

96. *Id.*

97. *Id.*

98. *Id.*

99. Blackwell, *How Now Brown Cow: Regulation of Feedlot Pollution in Wisconsin*, 3 ENVIRONMENTAL AFFAIRS 769, 771 (1974).



lakes by which the body of water is filled in by sedimentation from the death of organic matter and silt. These chemicals kill organic matter such as algae in the water, which in turn take oxygen from the water as they decompose, thereby increasing the already severe oxygen depletion problem.<sup>100</sup>

Due to its high nitrogen content feedlot runoff has been considered the major source of nitrate contamination of rural water supplies.<sup>101</sup> This nitrate contamination presents a danger of methemoglobinemia<sup>102</sup> in young infants and adolescents.<sup>103</sup> An additional problem associated with feedlot runoff is the presence of harmful bacteria and disease organisms in the water. There are over 100 animal diseases which can be transmitted between lower vertebrates and man.<sup>104</sup> The danger in the transmission of these diseases involves not only the contamination of drinking water, but also the contamination of water used for recreational purposes. The detection of excessive bacteria counts attributed to feedlot runoff which were considered dangerous to health has accounted for several outbreaks of disease and has resulted in the temporary closing of at least one federal recreation area.<sup>105</sup> The public health hazard associated with these disease organisms, if they are allowed to contaminate potable water supplies and recreational waters, provides sufficient reason to prohibit the entrance of feedlot seepage or runoff into surface waters.

Handling of feedlot wastes involves (1) the management of feedlot drainage to contain waste runoff and prevent discharge into a watercourse, and (2) the disposal of accumulated solid animal wastes to prevent water contamination by runoff or soil infiltration of underground water supplies. Water pollution from feedlot runoff is usually an intermittent problem which generally occurs during times of heavy rainfall or rapid snowmelt when large quantities of feedlot wastes are washed into nearby water sources. Current methods of controlling and treating feedlot runoff rely almost exclusively on the natural processes of containing the runoff in a pond or lagoon. The accumulated runoff is disposed of by evaporation and irrigation, with the periodic removal of solids which are spread as fertilizer on land surfaces. State and federal regulation of feedlots concentrates upon these feedlot waste management techniques.

#### A. State Water Pollution Control

Prior to the enactment of state and federal pollution laws a nuisance suit based on tort liability was the only method of pollution control. Although a

100. *Id.* at 770.

101. See F. GRAD, *supra* note 6, at 7-13. Such contamination has been documented in Illinois. Blackwell, *supra* note 99, at 770.

102. Methemoglobinemia is defined as "the presence of methemoglobin in the blood." Methemoglobin is "a compound closely related to oxyhemoglobin found in the blood following poisoning by certain substances." TABER'S CYCLOPEDIA MEDICAL DICTIONARY m-33 (10th ed. 1965).

103. See F. GRAD, *supra* note 6, at 7-13.

104. See SHUYLER, *supra* note 10, at VIII-13. A brief listing of the more common diseases that have been attributed to bacteria carried by runoff includes tetanus, brucellosis, Q fever, infectious hepatitis, amebic dysentery, typhoid, and other viral, fungal, and parasitical diseases. *Id.* at VIII-13 to -16.

105. See Blackwell, *supra* note 99, at 770.

nuisance suit for injunctive relief or damages is still possible, as a practical matter state and federal regulation is the primary means of abating water pollution caused by feedlots. Actions are now brought by public officials or private parties under authority of these acts. Pursuant to the Federal Water Pollution Control Act<sup>106</sup> all fifty states have enacted water quality laws which have been wholly or partly approved by the federal government.<sup>107</sup> These standards list acceptable BOD levels and other limitations, including the bacteria level, permitted in a body of water. These limitations can be utilized by the state or federal government in enforcing compliance with the quality of waste discharged into a stream; any wastes discharged from a livestock operation would be subject to this review and control under state water quality standards.<sup>108</sup> In most states feedlot operations are regulated under general water pollution statutes. In the major beef feeding states an additional means of control exists in the form of specific feedlot regulations.<sup>109</sup>

*The Oklahoma Feed Yards Act.* The Oklahoma version of specific feedlot regulations is found in the Oklahoma Feed Yards Act.<sup>110</sup> Among the states that have developed regulations pertaining specifically to feedlots, Oklahoma is unique since the Oklahoma Act was not developed as a part of regulations authorized by state water pollution control law. The Act is specific legislation regulating feedlot operation under control of the Oklahoma State Board of Agriculture.

The Oklahoma Act operates through a registration and licensing system whereby a license must be obtained before any person is allowed to operate a livestock feed yard of more than 250 animal units.<sup>111</sup> The owner of a livestock feed yard with a capacity of less than 250 animal units may apply for a license if he elects to come under the provisions of the Act.<sup>112</sup> Approval from the State Board of Agriculture must be obtained for construction of any new confined feeding operations or for significant modification of existing ones.<sup>113</sup> The annual license fee ranges from \$10 for lots under 250

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106. 33 U.S.C. §§ 1151-74 (1970).

107. U.S. DEPT OF AGRICULTURE, STATE REGULATIONS PERTAINING TO LIVESTOCK FEEDLOT DESIGN AND MANAGEMENT 3 (ARS-42-189, April 1971).

108. *Id.*

109. *Id.* at 1-2. These states include Arizona, Iowa, Kansas, Nebraska, Oklahoma, and Texas. Other states preparing such regulations include Minnesota, Missouri, Oregon, North Dakota, and South Dakota. These specific feedlot regulations generally define (1) terms used in confined feeding operations, (2) conditions under which registration is required, (3) information required for registration, (4) minimum requirements for runoff retention, and (5) penalties for violations. See SHUYLER, *supra* note 10, at I-3, -4.

110. OKLA. STAT. ANN. tit. 2, §§ 9-201 to -215 (1973). In addition to the Feed Yards Act, Oklahoma may regulate water pollution caused by feedlots under several other acts. These are important only as potential means of regulation; primary regulation is under the Feed Yards Act as a comprehensive act to regulate all water pollution emanating from a feedlot source. The other acts include the Oklahoma Water Pollution Control Act as amended in 1972, *id.* tit. 82, §§ 926.1-13 (Supp. 1976), the Oklahoma Solid Waste Management Act, *id.* tit. 63, §§ 2261-65 (1973), the Pollution Control Coordinating Act of 1968, *id.* tit. 82, §§ 931-39 (Supp. 1976), and general nuisance laws administered under the state Department of Health.

111. *Id.* tit. 2, § 9-208 (1973). "Animal unit" is defined to mean 1 beef animal, 4½ hogs, 12 sheep, or 180 poultry. *Id.* § 9-202(f).

112. *Id.* § 9-208.

113. *Id.* § 9-209.

animal units to \$150 for lots having a capacity in excess of 10,000 animal units.<sup>114</sup> The Act specifies the obligations of feedlot owners and operators, including providing reasonable methods of animal waste disposal, pest control procedures, adequate drainage of rainwater as necessary to avoid pollution of surface waters, adequate veterinarian services, and mechanical devices for maintenance of the feedlot premises.<sup>115</sup> Licenses may be suspended or revoked for failure to comply with the provisions of the Act or any regulations adopted thereunder.<sup>116</sup> Rules and regulations to supplement the Act were published on February 19, 1970, and include reservoir capacities for retention reservoirs, provisions for waste disposal, pest control, drainage, and veterinarian services.<sup>117</sup> The Act stipulates that any person violating the Act shall be deemed guilty of a misdemeanor and subject to a fine of up to \$100 per day.<sup>118</sup>

The Act contains a provision that any feed yard operated in compliance with the Act and regulations promulgated thereunder shall be deemed prima facie evidence that a nuisance does not exist, provided the feedlot is not in violation of any zoning regulations.<sup>119</sup> This shifts the burden of proof to the plaintiff in a lawsuit, a factor which may be very important in the outcome of the suit. While no cases have been prosecuted under the Feed Yards Act in Oklahoma, the significance of the identity of the agency that enforces the licensing requirement should not be discounted. If the licensing law is enforced by a health or environmental agency, the feedlot may have a better defense.<sup>120</sup>

Although the licensing authority in Oklahoma is the State Agricultural Board, the other states that have feedlot licensing laws are administered by differing types of agencies. An example is a Kansas law requiring certain livestock operations to have their water pollution control facilities approved by the Livestock Sanitary Commissioner before commencing operation.<sup>121</sup> Locating this "approval jurisdiction" in the State Department of Health may have the practical effect of reducing the likelihood that some juries will conclude that a health hazard exists.<sup>122</sup> Animal wastes in Texas fall under the Texas Water Quality Act<sup>123</sup> and the Solid Wastes Disposal Act.<sup>124</sup> The Texas Water Quality Board has developed the "Waste Water Control Policy" for commercial feedlots which includes broad design criteria for the development of such installations.<sup>125</sup> Therefore, a feedlot operator in Texas complying with these design criteria apparently would not be liable for punitive damages.

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114. *Id.*

115. *Id.* § 9-210.

116. *Id.* § 9-211.

117. *Id.* § 9-201.

118. *Id.* § 9-212.

119. *Id.* § 9-210.

120. See M. PAINE, *supra* note 44, at 1700.2.

121. KAN. STAT. ANN. § 47-1503 (1973).

122. See M. PAINE, *supra* note 44, at 1700.2.

123. TEX. WATER CODE ANN. §§ 21.001-.612 (1972).

124. TEX. REV. CIV. STAT. ANN. art. 4477-7 (1976).

125. Conversation with Mr. John Gibson, *supra* note 23.

*The Oklahoma Water Pollution Act.* The 1972 Oklahoma Water Pollution Act<sup>126</sup> repealed the Oklahoma Water Pollution Control Act of 1955 and established a new regulation system which complies with the Federal Water Pollution Control Act of 1967.<sup>127</sup> The Oklahoma Act, which is administered by the Oklahoma Water Resources Board, makes unlawful as a public nuisance the pollution of any state waters or the placement of wastes in a location likely to cause pollution of state waters.<sup>128</sup> A permit is required only for the discharge of industrial wastes.<sup>129</sup> Since the waste from a feedlot does not constitute industrial waste, a feedlot operator is excepted from a permit requirement under this Act. Note, however, that exception under the OWPA does not preclude the application of licensing requirements under other acts. For example, all feedlots with more than 250 animal units still are subject to the license requirement of the Oklahoma Feed Yards Act. The Act provides for notice and hearing upon an alleged violation,<sup>130</sup> with the only penalties being an adjudication of guilt on a misdemeanor charge and the issuance of an injunction against a continuing violation.<sup>131</sup>

*The Oklahoma Solid Waste Management Act.*<sup>132</sup> This Act may apply to a feedlot operator if he disposes of solid wastes from a feedlot operation in a manner that would be injurious to public health and welfare, pollute the air or water, spread disease, or create a nuisance.<sup>133</sup> The Act is administered by the State Department of Health.<sup>134</sup> The penalties that may be imposed are a maximum of thirty days' imprisonment or a maximum \$200 fine per day of violation, or both.<sup>135</sup>

*The Oklahoma Pollution Control Coordinating Act of 1968.*<sup>136</sup> The State Department of Pollution Control was created to coordinate and maintain surveillance of the air, waters, and other natural resources of the state.<sup>137</sup> The Act is administered by the Pollution Control Coordinating Board which is composed of nine members: the State Commissioner of Health; President of the State Board of Agriculture; Director of the Department of Wildlife Conservation; Director of the Oklahoma Water Resources Board; Chairman of the Oklahoma Corporation Commission; Director of the Industrial Development and Park Department; Executive Director of the Soil Conservation Board; and two members appointed by the Governor with the consent of the senate.<sup>138</sup>

The purpose of this Act is to establish an effective, coordinated environmental control program for the State of Oklahoma.<sup>139</sup> The Pollution

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126. OKLA. STAT. ANN. tit. 82, §§ 926.1-13 (Supp. 1976).

127. 33 U.S.C. §§ 1151-75 (1970).

128. OKLA. STAT. ANN. tit. 82, § 926.4(A) (Supp. 1976).

129. *Id.* § 926.4(B).

130. *Id.* § 926.7.

131. *Id.* § 926.10.

132. *Id.* tit. 63, §§ 2251-65 (1973).

133. *Id.* § 2252.

134. *Id.* § 2260.

135. *Id.* § 2264.

136. *Id.* tit. 82, §§ 932-42 (Supp. 1976).

137. *Id.* § 932(a).

138. *Id.* § 932(b).

139. *Id.* § 932(a).

Control Coordinating Board was vested with the authority to establish rules and regulations to implement this purpose.<sup>140</sup> The Act provides for notice and hearing on charges of violations, and the following penalties upon conviction: (1) misdemeanor with a fine of up to \$500 per day for first ten days of continuous violation and \$1000 per day thereafter, or maximum ninety days' imprisonment, or both fine and imprisonment;<sup>141</sup> (2) an injunction, and it is *not* necessary to show lack of adequate remedy at law;<sup>142</sup> (3) for death of fish or wildlife as a result of violation of the Act, the violator is responsible for investigative costs in establishing the responsible person and cost of replenishing wildlife and restocking waters.<sup>143</sup>

*Nuisance Laws in Oklahoma.* The State Department of Health has the power to abate any nuisance that is a threat to the public health.<sup>144</sup> Officials of a municipality have similar authority to protect the public health.<sup>145</sup> The laws applicable to a public nuisance for water pollution are the same as public nuisance laws relating to odor pollution.<sup>146</sup>

### B. Federal Water Pollution Control

*The Rivers and Harbors Act of 1899.* Prior to 1972 the only federal legislation dealing with the discharges of agricultural waste was the Rivers and Harbors Act of 1899.<sup>147</sup> The Act established a permit system to be administered by the Army Corps of Engineers.<sup>148</sup> Absent the possession of a permit, section 13 of the Act, commonly known as the Refuse Act of 1899, made unlawful the discharge of any refuse matter of any kind or description into any navigable water or a tributary of any navigable water of the United States.<sup>149</sup> The mechanics of the permit system were not set up by the Corps of Engineers until April 9, 1971, seventy-two years later.<sup>150</sup>

The Federal Water Pollution Control Act Amendments of 1972 (FWPCA)<sup>151</sup> have preempted the permit system established by the Refuse Act; therefore, most actions for water pollution will now be brought under the FWPCA. A possibility does exist, however, that certain actions still may be brought under the Refuse Act. One example would be when a person inefficiently spreads manure from a feedlot on land in a manner that results or may result in the washing of such deposits into navigable waters.<sup>152</sup>

*The Federal Water Pollution Control Act.* The Federal Water Pollution Control Act was substantially and fundamentally amended, reorganized, and

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140. *Id.* § 934.

141. *Id.* § 937(a).

142. *Id.* §§ 937(c), (d).

143. *Id.* § 937(b).

144. *Id.* tit. 63, § 1-106 (1973).

145. *Id.* tit. 11, §§ 665 (1959), 1004 (Supp. 1976), tit. 50, §§ 16, 17 (1962).

146. See notes 39-64 *supra* and accompanying text.

147. See Blackwell, *supra* note 99, at 773.

148. Refuse Act of 1899, 33 U.S.C. § 407 (1970).

149. *Id.*

150. See Blackwell, *supra* note 99, at 773. The mechanics are set out in Exec. Order No. 11,574, 3 C.F.R. 292 (1974), 33 U.S.C. § 407 (1970).

151. 33 U.S.C. §§ 1251-1376 (Supp. V 1975).

152. Blackwell, *supra* note 99, at 774.

expanded by the Amendments of 1972.<sup>153</sup> The goal of the 1972 Act is to restore and maintain the integrity of the nation's waters, with 1985 being the target date for the total elimination of pollutant discharges to navigable waters. To achieve this goal the EPA will implement a permit system and effluent limitations standards in its function of identification, control, and elimination of pollutants.

The 1972 Act preempted the permit system authorized by the Refuse Act of 1899 and established in 1971. The basic mechanism created in the 1972 Act that performs the function of the 1899 Act is the National Pollutant Discharge Elimination System (NPDES)<sup>154</sup> under which every discharger must obtain a permit from the EPA or from a state agency which has been delegated permit program authority by the EPA. Discharge of pollutants without a NPDES permit is unlawful under section 301(a) which states that "the discharge of any pollutant [from any point source] by any person shall be unlawful."<sup>155</sup> The NPDES permit system allows certain discharges, which would otherwise be unlawful, if the standards set forth in sections 301, 302, 306, 307, 308, and 403 are met.<sup>156</sup> The NPDES permit system implements the effluent limitation guidelines and standards set by EPA to control the type and quantity of discharge that will be allowed.

The 1972 Act recognizes that primary responsibility for the prevention, reduction, and elimination of pollution is lodged in the states, and requires the states to develop a comprehensive planning process for water quality management to reduce pollution from both point and nonpoint sources. Beginning January 1, 1975, each state is required to prepare and submit to the Administrator of the EPA annual reports assessing existing and anticipated water quality, an estimate of the programs necessary to achieve the purpose of the Act in that state, and recommendations for programs to control nonpoint sources of pollution.<sup>157</sup> The states are authorized to submit to the EPA a proposed program for implementing the NPDES requirements.<sup>158</sup> To be accepted, a state program generally must be equal in scope and effectiveness to the EPA program;<sup>159</sup> the state program must enforce effluent limitations as strict as the EPA guidelines,<sup>160</sup> provide an adequate inspection, monitoring, and reporting system,<sup>161</sup> and allow legal enforcement in the state courts.<sup>162</sup> Section 510 of the FWPCA allows the states to establish their own pollution criteria in the event state officials conclude that federal controls are insufficient to meet local pollution require-

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153. Act of Oct. 18, 1972, Pub. L. No. 92-500, 86 Stat. 816, *amending* 33 U.S.C. §§ 1151-75 (1970). The Federal Water Pollution Control Act will hereinafter be referred to as the 1972 Act.

154. Federal Water Pollution Control Act § 402, 33 U.S.C. § 1342 (Supp. V, 1975).

155. *Id.* § 301(a), 33 U.S.C. § 1311(a) (Supp. V, 1975).

156. *Id.* § 402(a)(1), 33 U.S.C. § 1342(a)(1) (Supp. V, 1975).

157. *Id.* § 305(b), 33 U.S.C. § 1315(b) (Supp. V, 1975).

158. *Id.* § 402(b), 33 U.S.C. § 1342(b) (Supp. V, 1975).

159. Hines, *Farmers, Feedlots and Federalism: The Impact of the 1972 Federal Water Pollution and Control Act Amendments on Agriculture*, 19 S.D.L. Rev. 540, 543 (1974).

160. Federal Water Pollution Control Act § 402(b)(1), 33 U.S.C. § 1342(b)(1) (Supp. V, 1975).

161. *Id.* § 402(b)(2), 33 U.S.C. § 1342(b)(2) (Supp. V, 1975).

162. *Id.* § 402(b)(7), 33 U.S.C. § 1342(b)(7) (Supp. V, 1975).

ments.<sup>163</sup> To ensure compliance with the Act, the EPA will maintain a continuing review of approved state programs and every permit application under a state program is subject to approval by the EPA.<sup>164</sup> The EPA retains backup authority over state plans, and full authority when the state plan is not given NPDES permit approval.

Penalties that may be imposed under the 1972 Act include the initiation of civil actions for injunctive relief and the imposition of a civil fine of up to \$10,000 per day;<sup>165</sup> criminal penalties for willful or negligent violation of permit conditions or discharge without a permit carry a maximum fine of \$50,000 per day and up to two years' imprisonment.<sup>166</sup> Citizens suits are allowed,<sup>167</sup> and the EPA has emergency powers to seek injunctions when pollution is causing an imminent and substantial danger to the health or livelihood of affected persons.<sup>168</sup>

*The Point Source Category.*<sup>169</sup> The basic control mechanism of the 1972 Act is the establishment and implementation of effluent limitations through the issuance of NPDES permits. Issuance of these permits is entirely dependent upon the concept of point source. In general, a point source is a pollutant source which is capable of identification and control at specific environmental entry points. A nonpoint source, on the other hand, is generally characterized as an open area from which a single source of discharge would be difficult or impossible to identify. The distinction between point and nonpoint sources is the determinative factor under the 1972 Act: point sources are subject to the NPDES permit requirement while nonpoint sources are not.

Feedlots are specifically included within the 1972 Act point source category. Section 502(14) defines "point source" to include, among other sources of discharges, "concentrated animal feeding operations."<sup>170</sup> Section 306(b)(1)(A) mandated the Administrator of the EPA to publish a list of categories of sources which specifically included "feedlots."<sup>171</sup> The 1972 Act subjects all point sources to the effluent limitation requirements of sections 301 and 302, the performance standards of section 306, and the toxic and pretreatment standards of section 307. The EPA was required by the 1972 Act to issue guidelines and standards for feedlot point source effluent limitations under section 304 and to make provision for the control of feedlot wastes through the section 402 NPDES permits.<sup>172</sup>

On December 5, 1972, the EPA published notice in the *Federal Register* concerning proposed application forms and permit guidelines for compliance with NPDES by feedlot point source operators.<sup>173</sup> These proposals, which

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163. *Id.* § 510, 33 U.S.C. § 1370 (Supp. V, 1975).

164. *Id.* § 402(c), 33 U.S.C. § 1342(c) (Supp. V, 1975).

165. *Id.* § 309(b), 33 U.S.C. § 1319(b) (Supp. V, 1975).

166. *Id.* § 309(c), 33 U.S.C. § 1319(c) (Supp. V, 1975).

167. *Id.* § 505, 33 U.S.C. § 1365 (Supp. V, 1975).

168. *Id.* § 504, 33 U.S.C. § 1364 (Supp. V, 1975).

169. Prior to June 10, 1975.

170. Federal Water Pollution Control Act § 502(14), 33 U.S.C. § 1362(14) (Supp. V, 1975).

171. *Id.* § 306(b)(1)(A), 33 U.S.C. § 1316(b)(1)(A) (Supp. V, 1975).

172. See Hines, *supra* note 159, at 551.

173. 37 Fed. Reg. 25898 (1972).

seemingly called for every farmer in the country to apply for a NPDES permit, immediately drew severe, nationwide criticism from agriculture interest groups. In response to that criticism substantially revised final NPDES permit regulations were published on July 5, 1973, by the EPA.<sup>174</sup>

The July 5, 1973, final NPDES permit regulations excluded large segments of the agricultural point source category from the requirement of permit application. These regulations relied on a population quota system to require permit applications only for those feedlots which, for any thirty-day period within the prior twelve months, have exceeded a set population.<sup>175</sup> Permits also were required for point sources otherwise excluded from the permit requirement if they were considered by the EPA or state program to be a significant contributor of pollutants.<sup>176</sup>

The Administrator's actions in excluding feedlot point sources below the numerical cutoff level was severely attacked by environmental groups and by the House of Representatives Subcommittee on Conservation and Natural Resources of the Committee on Government Operations.<sup>177</sup> This criticism culminated in *National Resources Defense Council, Inc. v. Train*,<sup>178</sup> a lawsuit filed against the EPA by the Natural Resources Defense Council (NRDC) in August 1973. The suit sought a declaratory judgment that the Administrator lacked the discretion to exclude certain point source categories of dischargers specified in the 1972 Act from NPDES permit requirements or that, if such discretion was authorized, the Administrator's actions constituted an arbitrary and capricious abuse of discretion.<sup>179</sup> The Administrator, in response to the NRDC suit, justified the exclusions on the basis of administrative problems in processing vast numbers of discharge application forms and concentrating attention on the most serious pollution problems of the larger feedlot operations. The Administrator also pointed out that only the permit requirement was relaxed, that all of the other point source requirements of the Act were in effect and could be enforced against a discharger, that any feedlot below the cutoff level could be required to apply for a permit if identified as a significant polluter, and that any feedlot operator could elect to apply for a NPDES permit.<sup>180</sup>

On March 24, 1975, Judge Thomas A. Flannery for the United States District Court for the District of Columbia issued a memorandum on the case between the NRDC and the EPA regarding the exemption of certain categories of sources from the permit requirements.<sup>181</sup> The memorandum indicated that the judge would award judgment to the NRDC. On June 10, 1975, Judge Flannery amended the March 24 opinion to hold that the exclusion of certain categories from the NPDES permit system was not

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174. 38 Fed. Reg. 18000 (1973) (promulgated in 40 C.F.R. pts. 124-25 (1975)).

175. *Id.*

176. 40 C.F.R. § 412.15 (1975).

177. H.R. REP. NO. 1012, 93d Cong., 2d Sess. (1974).

178. 396 F. Supp. 1393 (D.D.C. 1975).

179. *Id.* at 1395, 1398.

180. 39 Fed. Reg. 5706-07 (1974); 38 Fed. Reg. 18001-02 (1973).

181. 396 F. Supp. 1393 (D.D.C. 1975).



authorized by the 1972 Act.<sup>182</sup> The court ordered the Administrator of the EPA to "publish proposed regulations extending the NPDES permit system to include all point sources in the concentrated animal feeding operations . . . category"<sup>183</sup> as soon as possible, but within five months.

The June 10, 1975, amendment which invalidated the July 5, 1973, EPA permit program held that feedlot animal population alone was not a sufficient criterion for determining who should or should not obtain a permit. The judgment required the EPA to publish proposed regulations governing the point source category by November 10, 1975, and final regulations by March 10, 1976.<sup>184</sup> Although the EPA is prosecuting an appeal of the decision, the Agency was required to proceed with the promulgation of proposed and final regulations as required by the decision.

In conformance with this decision the EPA published proposed regulations on November 20, 1975.<sup>185</sup> These regulations attempted to delineate the scope of the NPDES permit program by redefining the term "concentrated animal feeding operation." Any facility falling within the definition of a "concentrated animal feeding operation" was considered a point source and was subject to the NPDES permit requirement.

"Concentrated animal feeding operation" was defined in terms of three criteria: (1) the number of animals confined in the operation; (2) without regard to the number of animals confined, the location of the operation relative to a water body; and (3) the presence of a man-made drainage ditch, flushing system, or other man-made device which discharged wastes directly into a stream.<sup>186</sup> If any one of these three criteria applied to a feeding facility, it was subject to the permit requirement.<sup>187</sup> A permit was not required even for those feeding operations which exceeded the specified number of animals if the only time a discharge of pollutants into navigable waters occurred was during a twenty-five-year, twenty-four-hour rainfall event.<sup>188</sup> The proposed regulations also provided that the permit requirement could be invoked to require a feedlot operator to obtain a permit upon a specific case-by-case determination that the facility was a "concentrated animal feeding operation" even though none of the three criteria was met.<sup>189</sup>

The EPA emphasized that these regulations did not automatically require applications for permits from every operator of a concentrated animal feeding operation point source. Before a permit was required, "discharge" into navigable waters must have occurred; therefore, if there was no discharge from a point source, or if the only discharge was in the event of a twenty-five-year, twenty-four-hour rainfall, there was no need for a permit.<sup>190</sup>

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182. *Natural Resources Defense Council, Inc. v. Train*, C.A. No. 1629-73 (D.D.C., June 10, 1975) (Order).

183. *Id.* (Final Judgment).

184. *Id.*

185. 40 Fed. Reg. 54182 (1975).

186. 40 Fed. Reg. 54183 (1975).

187. *Id.*

188. That is, the heaviest twenty-four-hour rainfall likely to occur in a twenty-five-year period. *Id.*

189. *Id.*

190. *Id.*

In effect, the regulations would have caused NPDES states to amend their regulations so as to be consistent with the federal regulations.<sup>191</sup> The proposed regulations also created new population quotas.<sup>192</sup> The EPA solicited comments and criticisms upon all aspects of the proposed regulations and received more than fifty responses from industrial groups, educational institutions, environmental organizations, governmental agencies, and interested persons.<sup>193</sup> Those comments, available for public inspection,<sup>194</sup> were instrumental in many of the changes included in the final regulations.<sup>195</sup>

Final regulations covering the feedlot point source category were published by the EPA on March 10, 1976.<sup>196</sup> These final regulations are structurally similar to the November 20, 1975, proposed regulations.<sup>197</sup> The most important aspect of the final regulations is that they require a permit only when there is a discharge of a pollutant from the point source into navigable water. In addition, no permit is required for any concentrated feeding operation which discharges pollutants only in the event of the heaviest twenty-four-hour rainfall likely to occur in a twenty-five-year period. Even if a discharge occurs more regularly, a permit is required only if the discharge reaches navigable waters.<sup>198</sup> A significant change in the final regulations is a lower level cut-off number than was initially proposed. Permits are required for feeding operations with less than 1000 animal units only if they have discharges of pollutants (1) through a man-made conveyance or (2) directly into navigable waters passing through the confined area. No permit is required for operations with less than 300 animal units unless

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191. *Id.* at 54184.

192. *Id.* at 54185-86. The quotas were: (1) 1,000 slaughter and feeder cattle; (2) 700 mature dairy cattle; (3) 4,500 slaughter hogs; (4) 35,000 feeder pigs; (5) 12,000 sheep or lambs; (6) 55,000 turkeys; (7) 180,000 laying hens, or (8) 290,000 broiler chickens.

193. 41 Fed. Reg. 11458 (1976).

194. *Id.*

195. See the full text, *id.* at 11458-59, regarding these primarily definitional and terminological changes.

196. *Id.* at 11458.

197. *Id.* The structure of the final regulations is:

*Feedlots with 1000 or more animal units.* Permit required for all feedlots with discharges of pollutants.

*Feedlots with less than 1000 but with 300 or more animal units.* Permit required if feedlot—(1) discharges pollutants through a manmade conveyance, or (2) discharges pollutants into waters passing through or coming into direct contact with animals in the confined area. Feedlots subject to case-by-case designation requiring an individual permit only after onsite inspection and notice to the owner or operator.

*Feedlots with less than 300 animal units.* No permit required (unless case-by-case designation as provided below). Case-by-case designation only if feedlot—(1) discharges pollutants through manmade conveyances, or (2) discharges pollutants into waters passing through or coming into direct contact with animals in the confined area, and, after onsite inspection, written notice is transmitted to the owner or operator.

The structure of the feedlot program proposed Nov. 5, 1975, and the program promulgated March 10, 1976, is diagrammed at 41 Fed. Reg. 11458 (1976).

198. The final regulations concern only those discharges of animal wastes that enter navigable waters. Thus, for example, if discharges leave the feeding operation but do not reach navigable waters because of filter strips or other alternative waste management techniques, including totally enclosed systems such as many poultry operations, and operations which recycle or absorb all pollutants to the land, no permit is required regardless of the size of the operation. *Id.* at 11459.

the two above factors exist and there has been an onsite inspection after which the owner is notified in writing that a permit is required.

A case-by-case designation was included in the final regulations to give the Director or Regional Administrator discretion to designate an animal feeding operation as concentrated regardless of size and, therefore, as requiring a permit.<sup>199</sup> In exercising this discretion the Director or Regional Administrator will designate a concentrated animal feeding operation only after an onsite inspection and determination that the operation should and could be regulated under the permit program. Also, before an application is required the owner or operator of the feedlot must be notified in writing of the application requirement.<sup>200</sup> The EPA does not anticipate that this discretion will be used other than in exceptional cases.<sup>201</sup>

The deadline for permit applications was changed from March 10, 1977, to September 1, 1976.<sup>202</sup> This shortened deadline was the result of comments received by the EPA indicating that the time available between the March 10, 1977, date and the implementation deadline in the FWPCA of July 1, 1977, was inadequate to enable owners and operators to construct pollution control devices. In addition, the earlier deadline was necessary to provide more time to comply with the procedural elements of permit issuance, including notice and opportunity to be heard.

*The Effluent Limitations.* On September 7, 1973, the EPA published its proposed "Effluent Limitations Guidelines for Existing Sources and Standards of Performance and Pretreatment Standards for New Sources" applicable to feedlots.<sup>203</sup> Final effluent guidelines and standards for feedlot point source categories were not published until February 14, 1974.<sup>204</sup> The final regulations broadly define "feedlot" to include "concentrated, confined animal or poultry growing operation . . . wherein the animals or poultry are fed at the place of confinement and crop or forage growth or production is not sustained in the area of confinement."<sup>205</sup> The regulations apply to both runoff escaping the feedlot area through precipitation (process waste water) and runoff occurring through accidental or deliberate discharge by reason of water used in the operation of the feedlot (process generated waste water).<sup>206</sup> The regulations divide feedlots into two categories: subpart A which includes all animals except ducks, and subpart B which relates to ducks. All subpart A category feedlots are subject to identical effluent limitation guidelines and standards, with duck feedlots having different

199. *Id.* It is intended that this discretionary determination be exercised only with respect to facilities having pollution potential. Thus, for operations smaller than 300 animal units only those which (1) have streams passing through the confined area or (2) have direct discharges into navigable waters are subject to this case-by-case designation. Feedlots with 300 or more animal units need not meet either criterion before a case-by-case designation may be made.

200. *Id.*

201. *Id.*

202. Permit applications are to be filed on Short Form B and accompanied by a \$10 application fee. *Id.*

203. 38 Fed. Reg. 24466 (1973).

204. 39 Fed. Reg. 5704 (1974) (promulgated in 40 C.F.R. §§ 412.10-.26 (1975)). These guidelines and standards became effective April 15, 1974.

205. 40 C.F.R. §§ 412.11, 412.21 (1975).

206. *Id.* §§ 412.12-.13, 412.22-.23.

requirements.<sup>207</sup> Category A feedlots are subject to the "no discharge" standard; duck feedlots are allowed to discharge limited amounts of organic wastes until 1977, at which time they also must comply with the "no discharge" rule.<sup>208</sup>

An exception is provided for both the effluent limitations and the standards of performance for discharges that result from the overflowing of a control facility caused by chronic or catastrophic rainfall. The effluent limitations exception for existing feedlot sources for the "best practicable control technology currently available," the 1977 goal, requires that control facilities be designed to contain all process waste water plus the runoff from the heaviest rainfall likely to occur in the region within a twenty-four-hour period once every ten years; discharge as a result of runoff caused by rainfall in excess of that amount is excepted. The effluent limitations exception for the "best available technology economically achievable," the 1985 goal, requires that facilities be adequate to contain process waste water plus the heaviest twenty-four-hour rainfall likely to occur within a twenty-five-year period. The standards of performance for new sources are identical to the 1985 goal facilities requirement for existing sources.<sup>209</sup>

Due to the potency of feedlot wastes and the relative ease with which they can be controlled by conventional detention facilities, the imposition of the no discharge requirement was not surprising. The final regulations established effluent guidelines and performance standards with the choice of pollution control method left to the feedlot operator. The most common method of pollution control is through the use of land retention structures: lagoons and holding ponds that are proportionate in size to the feedlot and waste load to be confined.<sup>210</sup> The effluent guidelines are dependent upon the new "point source" categories published March 10, 1976.

*The New Source NPDES Permits.* On Thursday, October 9, 1975, the EPA published proposed regulations<sup>211</sup> that would make new livestock and poultry feeding operations and other point sources subject to the Environmental Impact Statement (EIS) procedure that was established under the National Environmental Policy Act of 1969 (NEPA).<sup>212</sup> "New" feedlots are those constructed after September 7, 1973, the publication date of proposed new source effluent standards.

The explanation accompanying the proposed regulations noted that "[NEPA] requires that all agencies of the Federal Government prepare detailed environmental [impact] statements on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment."<sup>213</sup> The explanation further noted that section 511(c)(1) of the 1972 Act requires that NEPA apply to the issuance of a permit under

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207. *Id.* §§ 412.12-.16, 412.22-.26.

208. *Id.* §§ 412.22-.23.

209. *Id.* §§ 412.15, 412.25.

210. Hines, *supra* note 159, at 550 n.67, citing A. BUTCHBAKER, J. GARTON, G. MAHONEY & M. PAINE, EVALUATIONS OF BEEF CATTLE FEEDLOT WASTE MANAGEMENT ALTERNATIVES 18 (Pollution Control Research Series 13040 FXG 1971).

211. 40 Fed. Reg. 47714 (1975).

212. 42 U.S.C. §§ 4321-47 (1970).

213. 40 Fed. Reg. 47714 (1975).

section 402 for the discharge of any pollutant by a new source as defined in section 306.<sup>214</sup> The proposed regulation also provides procedures for applying NEPA to the issuance of new source NPDES permits as authorized by sections 301 and 402 of the 1972 Act. This regulation applies *only* to the issuance of NPDES new source permits by the EPA and *not* to the issuance of such permit from any state which has an EPA approved NPDES program.<sup>215</sup> If these proposed regulations become final, all "new" feedlots constructed after September 7, 1973, that are "point sources" under the November 20, 1975, regulations will be required to complete the procedural steps required for submitting an EIS *before* their application for an NPDES permit can even be considered by the EPA.<sup>216</sup>

Environmental impact statements can involve a lengthy, costly process, and would greatly complicate the already lengthy process of obtaining an NPDES permit. If the proposed regulations become final, foreseeably two things will happen: (1) very few, if any, new feedlots will be built in states in which the NPDES permit program is administered by the EPA because the cost of obtaining a permit will be prohibitive and the process too lengthy; and (2) more states will be applying for NPDES permit authority so that feedlots and other agricultural-related industries within the state will be exempt from the EIS requirement.

*EPA Enforcement of the 1972 Act.* The EPA has initiated few suits against feedlot operators for violations of the 1972 Act. The first indictment against a feedlot for an illegal discharge under section 301(a) of the 1972 Act occurred on February 19, 1974, in Omaha, Nebraska.<sup>217</sup> That case arose in Region VII of the EPA, which covers Iowa, Kansas, Nebraska, and Missouri. Two cases are being held for filing by the United States Attorney in Region VII, and several administrative orders have been issued. No actions have been filed against feedlot operators by the EPA in Region VI, which includes Texas, New Mexico, and Oklahoma; as of October 23, 1975, eight administrative orders had been issued to Texas and New Mexico feedlot operators notifying them of violations. EPA officials in both Region

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214. *Id.*

215. *Id.*

216. The following is a summary of the 14 procedural steps for complying with these proposed regulations:

The proposed feedlot or industrial applicant would first submit data concerning his operation *at least 9 months before construction can begin*. Later, he would compile and submit a comprehensive 'environmental assessment report' (normally written by consultants). Then, if EPA rules that the operation will 'significantly affect the quality of the human environment,' an *Environmental Impact Statement* (EIS) will be drafted by EPA staff based on the 'environmental assessment report.' This document is widely reviewed by other agencies and the public. The review process will include consideration of *all environmental aspects* including air pollution, solid waste, pesticides, and water pollution. When all major objections are finally satisfied in the final impact statement, the NPDES permit can be processed by EPA.

Texas Agricultural Extension Service, Agricultural Engineering Special Newsletter, Oct. 22, 1975 (emphasis in original).

217. *United States v. American Beef Packers, Inc.*, Civ. No. CR-74-0-30 (Neb. Dist. Ct. 1974) (dismissed for lack of jurisdiction). Conversation with EPA attorney Gary Wenell, Region VII, Oct. 23, 1975.

VI and Region VII have indicated that the administrative order has been a very effective tool in forcing compliance with the 1972 Act.<sup>218</sup>

The EPA has developed a new device that will be of interest to feedlot operators and environmental enforcement agencies. This is a monitoring and sampling equipment system that is automatically triggered by a discharge, such as rainfall runoff. Upon the occurrence of a discharge the equipment begins to take samples at fifteen-minute intervals, and it automatically triggers a warning system that dials the telephone numbers of five people locally and in the EPA.<sup>219</sup> This automatic monitoring and sampling device could be of importance in enforcing the 1972 Act in the future. It can be used to prove a discharge has occurred where the feedlot operator does not have a permit and refuses to file for one; the EPA would have a very strong case against a discharger based upon evidence collected by this device. The device could be placed on the state or county right of way without the feedlot operator's knowledge, or the EPA could place it upon the operator's own property under section 1318 "Inspections, monitoring and entry."<sup>220</sup>

### III. CONCLUSION

Feedlot pollution is a rapidly developing area of the law in the United States. Odor pollution is impossible to control or eliminate completely under current technology, and only very recently have a few areas developed feedlot odor pollution standards. Water pollution caused by feedlots is easier to control and eliminate, and stringent regulations have been promulgated and proposed to regulate this area further.

This Article is an attempt to acquaint the reader with the severity of the problem and the statutory and case law that has developed to regulate feedlot pollution. Feedlot pollution can be serious, but the feedlot pollution potential should not be overemphasized to create the impression that every feedlot is causing fish kills, poisoning babies, or creating some other horror. Not all feedlots are polluters. In fact, most are managed efficiently and in a husband-like manner. Many of the nuisance odor cases brought against feedlot operators have emphasized a very real dilemma the feedlot operators face: exaggerated pollution problems and underestimated technical difficulties, and the economic impact of agricultural pollution abatement programs. To preserve and protect the quality of the environment is important, but the cure should not strangle the cause. To be effective, regulation of feedlot pollution must be economically realistic.

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218. Conversation with EPA official Mr. Bradley, Region VI, Oct. 23, 1975; Conversation with EPA attorney Gary Wenell, *supra* note 217.

219. *Id.* This monitoring and sampling system has been used to prove a discharge against a feedlot operator in Iowa who refused to obtain a NPDES permit.

220. Federal Water Pollution Control Act § 308, 33 U.S.C. § 1318 (Supp. V, 1975).