

The National Agricultural
Law Center



University of Arkansas
System Division of Agriculture

NatAgLaw@uark.edu | (479) 575-7646

An Agricultural Law Research Article

Piling it on Thick: An Overview of Arkansas Poultry Litter Regulation

by

Jillian Hishaw

Originally published in DRAKE JOURNAL OF AGRICULTURAL LAW
11 DRAKE J. AGRIC. L. 225 (2006)

www.NationalAgLawCenter.org

PILING IT ON THICK: AN OVERVIEW OF ARKANSAS POULTRY LITTER REGULATION

Jillian Hishaw

I. Introduction.....	225
II. Production Methods.....	226
A. Production Tactics.....	226
B. Production Contracts	227
C. Use of Chicken Manure as a Fertilizer	229
D. Pollution Problems	229
III. The Clean Water Act.....	230
IV. Cross border Wars.....	232
A. Oklahoma v. Arkansas	232
B. <i>City of Tulsa</i>	235
C. Sierra Club lawsuit	236
V. State Regulations to Address Poultry Litter Application	238
A. Arkansas Poultry Regulations	238
B. Oklahoma's Regulations	245
C. Farmer Opposition.....	246
VI. Latest Developments.....	248
VII. Alternative Uses of Fertilizer.....	250
VI. Conclusion	251

I. INTRODUCTION

Driving into Arkansas from Southwest Missouri, it is easy to see why the Arkansas state motto is "The Natural State." Layered with trees and rolling hills, the scenery looks like something out of a picture book. For visitors, the realization that Arkansas is plagued with environmental problems would seem inconceivable. The fact that 5,100 tons of poultry manure, 3,600 pounds of zinc, 3,300 pounds of iron, and 300 pounds of arsenic are dumped daily into this once pristine state is an unfortunate reality.¹ Home to 7,000 chicken farms and three leading poultry corporations, Tyson Food's Inc., Simmons Food's Inc., and George's

1. J.T. Holleman, In Arkansas Which Comes First, The Chicken Or the Environment? 6 Tul. Envtl. L.J. 21, 29-30 (1992).

Inc., Arkansas is also the second leading broiler producing state.² With over 1 billion broilers and 3.4 billion eggs produced in 2004, many Arkansans' livelihood depends on poultry production.³ In 2003, Arkansas generated \$2 billion in revenue from broiler production and \$297 million in egg production.⁴

Not everyone is happy with Arkansas's most lucrative commodity. Pollution from poultry production is a serious and complex problem for the region. For over twenty years, the neighboring state of Oklahoma has objected to the way Arkansas uses the Illinois River, a shared water source among the two states. Vertical integration in the poultry industry raises critical questions as to who is liable for the pollution - the corporate integrator or the "farmer" who raises, but never owns, the chickens. Corporate integrators are both the driving force of pollution and one of the main driving forces of the area's economy.

To evaluate the pollution problem, this article will first look at the means of production and the one-sided terms of a poultry production contract. Second, the article will focus on chicken litter, the essential by-product of production and its effects on the environment. Part III will explore the recent amendments to the Clean Water Act which included a provision specifically regulating the use of dry litter. In Part IV the issue of integrator liability will be addressed through a study of the interstate dispute between Oklahoma and Arkansas. Part V will address the recent regulations passed in Arkansas and how it compares to Oklahoma's existing regulations. In concluding, Part VI will address the latest developments in the dispute between the two states, and Part VII will discuss some of the alternative uses of litter.

II. PRODUCTION METHODS

Today, most poultry and egg production methods are dramatically different than those used a generation ago in a typical family farm setting. Currently, most production adheres to an industrial model.

A. Production Tactics

Chickens are raised either for meat or egg production. Broilers are raised for meat consumption and live an average of six weeks.⁵ For the purpose of egg

2. Arkansas Farm Bureau, Average Yearly Production Fact Sheet (2005), http://www.arfb.com/commodity/ark_agpoultry.asp (last visited Jun 14, 2006).

3. *Id.*

4. *Id.*

5. Holleman, *supra* note 1, at 25.

production, layers have a longer life span of two to three years.⁶ According to the USDA, in 1997, the average broiler house was measured at 40 x 400 ft and housed 20,000 birds per flock.⁷ Thus, each broiler is reserved 0.8 sq. ft. of living space.⁸ However, according to 2005 USDA statistics, the average house is now 60 x 600 ft.⁹ This trend of “the bigger the better” has become a financial burden for farmers, with most houses carrying a ten year depreciation value under an average fifteen year loan obligation.¹⁰

B. Production Contracts

According to 1999 statistics, the average American consumes ninety-five pounds of chicken per year.¹¹ To keep up with consumer demands, the cost efficient production method of vertical integration has been employed since the 1950s.¹² Vertical integration is when a single integrator monopolizes all the stages of production “i.e. breeding, hatching, grow out, and processing.”¹³ In order to ensure a uniform system of production, the integrator contracts with farmers to raise the poultry under strict production requirements. Currently, “eighty-five percent of chickens are grown under production contracts, making poultry production one of the most highly industrialized areas of agriculture.”¹⁴ While the integrator provides the “chickens, feed, medication, and management supervision,” the farmer basically supplies the necessary services of “land, housing, equipment, fuel, electricity, litterbase, and labor” to fulfill the integrator’s production needs.¹⁵

6. JOE BERRY, OKLAHOMA COOPERATIVE EXTENSION SERVICE, OFTEN ASKED QUESTIONS ABOUT POULTRY AND EGGS I (2004), <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-2098/F-8402web.pdf>.

7. Intensive Poultry Production: Fouling the Environment (1997), <http://www.upc-online.org/fouling.html> (last visited April 14, 2006).

8. *Id.*

9. Kenny Bounds, Vice President, Chief Dev. Officer, MidAtlantic Farm Credit, A Lender’s Perspective on Contract Poultry Production at 2006 USDA Agricultural Outlook Forum (Feb. 17, 2006) available at http://www.usda.gov/oce/forum/2006_speeches.htm (follow “A Lender’s Perspective on Contract Poultry Production Kenny Bounds, Vice President, Chief Development Officer, MidAtlantic Farm Credit – PPT” hyperlink).

10. *Id.*

11. Anne Fanatico, Sustainable Poultry: Production Overview (ATTRA-Nat’l Sustainable Agric. Info. Service 2002), <http://www.attra.org/attra-pub/poultryoverview.html> (last visited April 14, 2006).

12. *Id.*

13. *Id.*

14. *Id.*

15. Holleman, *supra* note 1, at 25.

From the formulation of specialized chicken feed to the disposal of dead carcasses, each aspect of a chicken's life is defined in the form of contract terms.¹⁶ The concept of freedom of contract is non-existent. Each farmer's facility must meet or be built to the integrator's specifications.¹⁷ The terms are so extensive that if a farmer does not maintain "all-weather roads" or "adequate space" for vehicles to turn around, "the producer is liable for wrecker or towing charges in addition to any other damages the company may sustain."¹⁸

Yielding a 10-25% profit over the farmer's 9% gain, integrators seem to be the only party getting the benefit of the bargain.¹⁹ Being forced to maintain all of these costs, plus the expense of manure disposal, has created long-term debt obligations for many farmers.²⁰ In a 2001 USDA survey of 1,424 growers, it was reported that "the net cash flow from broiler operation[s] was less than \$30,000" for three-quarters of the growers surveyed.²¹ With a high debt investment and a low return rate, many farmers object to the integrators' tactics in formulating payment.²² The typical formula is based on "the number and weight of chickens harvested compared to the number of chicks and pounds of feed delivered."²³ However, the farmer's compensation varies depending on how they rank among the group of growers in the area.²⁴ According to seventy-eight percent of growers surveyed by the USDA, "pay depends more on [the] quality of chicks and feed supplied than on the quality of their own work."²⁵ The same percentage also reported the lack of "company assistance with proper disposal of litter or dead birds."²⁶ These statistics indicate that if the grower is not supplied with quality birds, they will not yield a sufficient profit to pay off their debt. Given the low

16. Fanatico, *supra* note 11.

17. *Id.*

18. Neil D. Hamilton, *Broiler Contracting In the United State – A Current Contract Analysis Addressing Legal Issues and Grower Concerns*, 7 DRAKE J. AGRIC. L. 43, 49 (2002).

19. C. Robert Taylor, *Restoring Economic Health to Contract Poultry Production* (Auburn Univ. College of Agric. 2002), <http://www.auburn.edu/~tayloctr/topics/poultry/poultryproduction.htm> (last visited June 19, 2006).

20. Phillip L. Kunkel & Scott T. Larison, *Agricultural Production Contracts* (Regents of the Univ. of Minn. 2006), <http://www.extension.umn.edu/distribution/businessmanagement/DF7302.html> (last visited April 14, 2006).

21. Lee Schrader & John Wilson, *Broiler Grower Survey Report, ASSESSING THE IMPACT OF INTEGRATOR PRACTICES ON CONTRACT POULTRY GROWERS* (Farmers' Legal Action Group, St. Paul, MN), Sept. 2001, at 1, 6 available at <http://www.flaginc.org/topics/pubs/poultry/poultryrpt.pdf>.

22. *Id.* at 2-5.

23. Hamilton, *supra* note 18, at 45.

24. *Id.* at 45.

25. Schrader, *supra* note 21, at 1, 6.

26. *Id.* at 2-5.

profit margins and the farmers' vulnerability under the production contracts, the issue of manure disposal is particularly sensitive.

C. Use of Chicken Manure as a Fertilizer

With an average of thirty million pounds of animal manure produced daily in Northwest Arkansas the problem of excess is clearly evident.²⁷ While manure, which has a high concentration of phosphorus and nitrogen, can be a resource, when applied in excess it is a pollutant to the environment.²⁸ Whether stored, applied, or sold, the by-product of litter can be destructive. With most manure being applied as a fertilizer and an average litter application of two to four inches, the use of safe management practices is critical.²⁹ Timing and application methods are essential to ensuring safe management practices.³⁰ Pasture application "should occur during periods when runoff potential is low and plant growth is strong."³¹ Whether dry or wet, litter should be disbursed evenly in a location that is conducive for plant growth and minimum runoff.³²

D. Pollution Problems

Many people link the cause of runoff pollution in Northwest Arkansas and Northeast Oklahoma areas to the farmer. When litter is transported into lakes, rivers, and streams, it is considered a non-point source of pollution because the source of discharge is unidentifiable.³³

High levels of phosphorus and bacteria have led many farmers to evaluate their method of application. Since "poultry litter phosphorus is bound to organic matter, where as phosphorus from commercial fertilizers is largely water soluble" the need for minimal application is necessary.³⁴ Excessive application of litter could "result in high soil phosphorus levels, 200 parts per million or more, building up in the top few inches of the soil."³⁵ When the soil is absorbed

27. Holleman, *supra* note 1, at 26.

28. Rick Smith, *Poultry Manure Handling-A Practical Approach* (1996), [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/pou3606](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/pou3606) (last visited Apr. 14, 2006) (Manure consists of saw dust, rice hulls, chicken feces, feathers, blood and other bedding material).

29. *Id.*

30. *Id.*

31. *Id.*

32. *Id.*

33. *Id.*

34. Robert Burns, *Nitrogen Plus Broiler Litter Cleans Water* (2004), http://www.southwestfarmpress.com/mag/farming_nitrogen_plus_broiler/index.html (last visited Apr. 14, 2006).

35. *Id.*

into water sources, the phosphorus contaminates the water. Nutrient build up causes a decrease in the oxygen level of the water and increases the growth of organisms such as algae.³⁶ As will be discussed in the next section of this article, the Clean Water Act ("CWA") was the first piece of federal legislation to address the regulation of water pollution that originates from a farm.³⁷

III. THE CLEAN WATER ACT

Early on, Congress recognized the need for the regulation of water pollution by passing the CWA in 1972.³⁸ The CWA's purpose is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters."³⁹ Under the CWA, "point sources" that discharge pollutants into a waterway require a permit under the National Pollutant Discharge Elimination System ("NPDES").⁴⁰ In March 1976, the CWA was amended to include certain Animal Feeding Operations ("AFO") in the definition of a "point source."⁴¹ Under the amended CWA, these AFOs must obtain an NPDES permit issued by the EPA or a state that has been given permitting authority.⁴² The guidelines of compliance are based upon the best available technology that the facility can afford when the permit is issued.⁴³ Each permit is open for public comment, and once the final permit is enacted it is effective for five years, at which time it expires and renewal is required.⁴⁴ The AFOs that are subject to the permitting system are those defined as Concentrated Animal Feeding Operations ("CAFO").⁴⁵ For an AFO to be considered a CAFO it must contain a certain number of animals in a concentrated area that discharges pollutants through a manmade device or into any U.S. waterway.⁴⁶ The CWA recognizes CAFOs as a point source where the location of discharge can be identified, unlike a non-point source where the location of disposal is unknown.⁴⁷

36. G. Tyler Miller, Jr., ENVIRONMENTAL SCIENCE: WORKING WITH THE EARTH, 306-307 (8th ed. 2001).

37. See Pub. L. 92-500 (1972) (amending Federal Water Pollution Control Act).

38. *Id.*

39. 33 U.S.C. § 1251(a) (2000).

40. *Id.* § 1342.

41. *Id.* § 1362(14).

42. *Id.* § 1342.

43. *Id.* § 1311.

44. *Id.* § 1342.

45. 40 C.F.R. § 122.23(b)(2) (2005).

46. *Id.* §§ 122.23(b)(2), (b)(6)(ii).

47. *Id.* § 122.23(a).

The permitting standards for poultry depend on the size, location and concentration of a facility.⁴⁸ Facilities that contain over 125,000 broilers are considered large, versus medium operations of more than 37,500.⁴⁹ Lastly, the threshold levels not only distinguish layers from broilers, but differentiate the discharge capacity of each bird type.⁵⁰ It should be noted, however, that these provisions only regulate the disposal of liquid poultry litter into U.S. waterways. They do not apply to the land application of litter that may later run off as non-point source pollution.⁵¹

In 2003, EPA amended the Clean Water Act regulations to include a provision that specifically regulated the use of dry litter, requiring CAFOs to obtain NPDES permits.⁵² Similarly, CAFOs are required to implement a nutrient management plan as a prerequisite for obtaining a NPDES permit.⁵³ Additional documentation of how much manure is stored, applied, and the methods of application are also required.⁵⁴ Amended sections include the NPDES permitting requirements for CAFOs, the Effluent Limitations Guidelines, and Standards for CAFOs. For more than twenty five years the regulations for CAFOs had remained the same, while the amount of meat and waste production increased.⁵⁵ By amending the regulations, the rules now address the current rate of production. It is essential to improve the management standards, especially since the original rule did not include the regulation of dry litter.⁵⁶ In justifying the need for new regulations, the EPA emphasized that “liquid manure systems are used at approximately 25 percent of layer operations and are not generally used at broiler operations. As a result, most chicken operations are not covered by the existing regulations.”⁵⁷

Although the EPA was pleased with the new revisions, many states, and certain environmental and farming organizations were not. The case of *Waterkeeper Alliance v. U.S. EPA*, challenged the regulations as not providing enough protection.⁵⁸ On February 28, 2005, the Second Circuit held that several

48. *Id.* § 122.23(c)(2).

49. *Id.* §§ 122.23(4),(6),(9).

50. *Id.*

51. Revisions to the National Pollution Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations; Final Rules, 68 Fed. Reg. 7176, 7192 (Feb. 12, 2003) (codified at 40 C.F.R. pt. 122) [hereinafter CAFO Revised Regulations].

52. 68 Fed. Reg. at 7192.

53. *Id.* at 7176.

54. *Id.*

55. *Id.* at 7180.

56. *Id.* at 7176.

57. *Id.* at 7192.

58. *Waterkeeper Alliance v. U.S. EPA*, 399 F.3d 486, 486 (2d Cir. 2005).

aspects of the new CAFO provisions violated the objectives of the CWA.⁵⁹ Due to the *Waterkeeper* ruling, the status of the new CAFO rules is uncertain.⁶⁰

Since being enacted in 1972, the CWA has been the central source of water quality regulation.⁶¹ However, with so many people concerned about environmental hazards in their community, many states have passed harsher legislation. Oklahoma, like other states, has set higher water quality standards than the CWA minimally provides. In *Oklahoma v. Arkansas*, Oklahoma's demand for better water quality of the Illinois River went all the way up to the Supreme Court.

IV. CROSS-BORDER WARS

A. *Oklahoma v. Arkansas*

The Illinois River flows from the Northwest corner of Arkansas into the Eastern part of Oklahoma. Arkansas and Oklahoma use the Illinois River as their primary water source. As a down-stream state, Oklahoma receives the water and waste that is deposited in the Arkansas section of the river. In addition to poultry runoff, this may include pollution from large entities such as JB Hunt Inc., Wal-Mart Inc., Tyson Foods Inc. and the University of Arkansas. It also includes wastewater from cities serving the exploding population of Northwest Arkansas; since the last 2000 census, Northwest Arkansas's population has increased fifty-eight percent.⁶²

The dispute between Oklahoma and Arkansas began not with a concern about poultry, but wastewater discharge into the Illinois River. The need for an additional waste water facility plant in Northwest Arkansas was evident by July 1985. The proposed construction of this plant sparked a controversy that ended up before the United States Supreme Court.⁶³ This case marked the beginning of the border wars.

Facilities that discharge into waterways regulated under the CWA must obtain a NPDES permit approved by the EPA or a state agency that has been given permitting authority to enforce water quality standards.⁶⁴ Under the CWA, the EPA is given permitting authority to regulate the total maximum daily loads

59. *Id.* at 486.

60. 40 C.F.R. § 122.23 (2005).

61. 33 U.S.C. § 1251 (2000).

62. Charlie Morasch, *Booming Cities see Census as a Good Bet*, ARKANSAS DEMOCRAT-GAZETTE, Jan. 30, 2005, available at <http://www.nwanews.com/story.php?paper=adg§ion=News&storyid=106447>.

63. *Arkansas v. Oklahoma*, 503 U.S. 91, 95 (1992).

64. Clean Water Act, 33 U.S.C. § 402 (2006).

("TMDL") a point source facility can discharge.⁶⁵ TMDLs are set standards of how much toxic waste can be discharged into a waterway in relation to each state's water quality standards.⁶⁶ States are allowed to establish water quality standards that are at a minimum in conformity with the EPA's standards.⁶⁷ For Oklahoma, the new facility in Arkansas would add to the existing pollution of the Illinois River. The EPA approved Arkansas's permit request, and Oklahoma objected, requesting an administrative hearing.⁶⁸ The Administrative Law Judge ("ALJ") favored the issuance of the permit, concluding that Oklahoma's water quality standards would not be negatively affected.⁶⁹ On a petition for review, the EPA's Judicial Officer remanded the case to the ALJ under the instructions that the correct EPA standard be applied.⁷⁰ The CWA requires that an NPDES permit include the necessary limitations to meet a state's water quality standards.⁷¹ Finding that "the discharge would not have an undue impact on Oklahoma's waters" the ALJ did not take Oklahoma's standard into consideration as required in affirming the permit.⁷² The Chief Judicial Officer sustained the issuance of the permit, and both states appealed the decision to their respective courts.⁷³

Arkansas appealed the matter to the Eighth Circuit Court of Appeals arguing that they did not have to comply with Oklahoma standards, and Oklahoma appealed to the Tenth Circuit Court of Appeals arguing that its standards would be violated if construction of the plant was approved.⁷⁴ Arkansas's petition was later transferred to the Tenth Circuit to be tried as one case.⁷⁵ The Tenth Circuit ruled against issuing the permit, finding that the existing waste problems of the Illinois River already violated Oklahoma's water quality standards, and that approving the permit "would contribute to the river's deterioration"⁷⁶

Arkansas appealed to the Supreme Court, which concluded that since the Oklahoma standards were federally approved and thus had a "federal character," EPA's "reasonable, consistently held interpretation of those standards is entitled to substantial deference."⁷⁷ The Court stated that "[i]t is not our role or that of

65. *Id.*

66. 33 U.S.C. § 303 (2000).

67. 33 U.S.C. § 402 (2006).

68. *Arkansas*, 503 U.S. at 95.

69. *Id.* at 96.

70. *Id.*

71. *Id.* at 97.

72. *Id.* at 96.

73. *Id.* at 97.

74. *Id.*

75. *Id.*

76. *Id.* at 91.

77. *Id.* at 110.

the Court of Appeals, to decide which policy choice is the better one, for it is clear that Congress has entrusted such decisions to the EPA."⁷⁸ Based on this decision, Northwest Arkansas was finally allowed to build its wastewater treatment plant.

Because the EPA has allowed each state to regulate its own waterways, interstate conflicts like *Arkansas* are inevitable. Since waterways are not confined within state boundaries, each state's standards have an effect on the other. Due to the lack of uniformity in state standards, one state's permissible actions can have devastating effects on a state which maintains higher requirements. This type of friction has been increasingly evident between Oklahoma and Arkansas since the 1992 Supreme Court ruling.

Due to several years of Arkansas not adhering to Oklahoma water quality standards, Oklahoma decided to upgrade the status of the Illinois River in 2002 to be categorized as a scenic river.⁷⁹ Rivers that are designated as scenic are protected for its unique beauty and conservation.⁸⁰ Additional changes also included requiring Arkansas to meet a new phosphorus standard of 0.037 mg/L by 2012.⁸¹ Many farmers, corporations, and municipalities in Arkansas argue that the standard is impossible to meet.⁸² This initiated Arkansas to pass litter regulations in order to comply with the Supreme Court ruling to meet Oklahoma's water quality standards.⁸³ Supported by the Governor of Oklahoma, Brad Henry, and Oklahoma's Attorney General Drew Edmondson, they anticipate the new standard of 0.037mg/L should be met by Arkansas within less than ten years.⁸⁴ The new regulations are estimated to reduce the amount of phosphorus by seventy-five percent.⁸⁵ Written by the Arkansas Department of Environmental Quality and enforced by the Arkansas Natural Resources Commission, each poultry regulation is designed for a specific purpose to contribute wholly to conserving the Illinois River.⁸⁶ The source of pollution is no longer sewage but poultry litter, raising critical issues regarding who should be liable. Since farmers are technically liable based on contract provisions, integrators often hide behind the non-

78. *Id.* at 114.

79. OKLA. STAT. tit. 45, §§ 5-19 (2002).

80. *Id.* tit. 82, § 1452 (2002).

81. *Id.* tit. 45, § 5-19 (2002).

82. Scott F. Davis, *Actions Speak Louder than Words*, *The Morning News/ NWA*.online.net (May 9, 2002), <http://www.illinoisriver.org/WhatsStirring/33996.aspx> (last visited April 14, 2006).

83. ARK. CODE ANN. § 15-20-2201 (West 2004); *see also* Press Release, Oklahoma Governor Brad Henry, Dec. 18, 2003), *available at* http://www.governor.state.ok.us/display_article.php?article_id=146&article_type=1.

84. *Id.*

85. *Id.*

86. ARK. CODE ANN. § 15-20-2201 (2004) (West).

liability clause of the contract. Fortunately, states like Oklahoma have demanded greater liability from integrators, which was noted in the cases, *City of Tulsa v. Tyson Inc.* and *Sierra Club v. Tyson Inc.*⁸⁷

B. City of Tulsa

Tired of paying for clean drinking water, the City of Tulsa, Oklahoma, brought suit against Cobb-Vantress, Inc., Peterson Foods, Inc., Simmons Foods, Inc., Cargill, Inc., George's, Inc., and the City of Decatur, Arkansas, in an effort to hold poultry integrators liable for runoff that they alleged was contaminating their water source.⁸⁸ In *City of Tulsa v. Tyson Inc.*, Tulsa argued that nutrient runoff from poultry farms and high levels of discharge from the wastewater treatment plant in Decatur, Arkansas, contaminated the Eucha/Spavinaw Watershed, Tulsa's primary drinking water supply.⁸⁹ However, what is extraordinary about this case is the fact that the city sued the integrators rather than the farmers, who are contractually liable for the manure under the production contract.

The case settled out of court in July 2003 for \$7.5 million.⁹⁰ Unfortunately, the bulk of the award went to attorney's fees, and only \$200,000 was received by Tulsa for its damages.⁹¹ There was no money left to reimburse Tulsa for its past, present, and future clean-up costs.⁹²

After a long battle in court and months of opposition by the integrators attempting to shift the blame to the growers, the defendants finally admitted to liability in the most discrete way possible - through a settlement. *Tulsa's* settlement terms does represent how the poultry industry and citizens can come to a compromise, once the integrators are forced to settle out of court. The development of a Phosphorus Index team ("PI team") was the primary factor in accomplishing both parties' goals.⁹³ The PI team was a group of scientists from the University of Arkansas and Oklahoma State University who were responsible for devising an index that would classify the amount of nutrients that can be applied

87. *City of Tulsa v. Tyson Foods, Inc.*, 258 F. Supp. 2d 1263 (N.D. Okla. 2003); *Sierra Club, Inc. v. Tyson Foods, Inc.* 299 F. Supp. 2d. 693 (W.D. Ky. 2003).

88. *City of Tulsa v. Tyson Foods, Inc.*, 258 F. Supp. 2d 1263, 1270 (N.D. Okla. 2003).

89. *Id.*

90. Robert J. Smith, *Oklahoma Hires Firm, Threatens Poultry-Litter Suit*, ARKANSAS DEMOCRAT-GAZETTE, Sept. 11, 2004, available at http://biosystems2.okstate.edu/scenic/News/Oklahoma_hires_firm.pdf#search=%22Robert%20J.%20Smith%20Oklahoma%20Hires%20Firm%2C%20Threatens%20Poultry-Litter%20Suit%22.

91. *Id.*

92. Robert Smith, *Farmers to Join Rules Panel Poultry Growers Will Help Assess Litter Regulations*, ARKANSAS DEMOCRAT-GAZETTE, Mar. 3, 2004, available at 2004 WL 75955040.

93. *City of Tulsa*, 258 F. Supp 2d. at 1271.

to land without creating a risk.⁹⁴ The index enumerated how much fertilizer could be minimally applied to maintain a safe water supply.⁹⁵ Unable to settle on a combined proposal, on February 9, 2004, the U.S. District Court of Oklahoma gave the PI team until December 31, 2004 to come to a mutual agreement.⁹⁶ Since no joint effort was reached, the index was determined by the court based on both teams' results.⁹⁷

According to the Court's interpretation of the PI team's research, if more than two-thirds of litter is applied to the land, it will cause nutrient excess.⁹⁸ Overall, the matter concluded with the Court enforcing how much phosphorus could be applied to the land based on the PI team's continued studies.⁹⁹ Although the integrators never admitted fully to liability, they did admit to some responsibility; according to the *Daily Oklahoman*, "the poultry companies have argued they are not the primary contributors."¹⁰⁰ Unfortunately, one aspect of settling a case is avoiding any admissions of guilty. However, other plaintiffs have also sought to hold integrators liable for pollution from the poultry industry.

C. Sierra Club lawsuit

The U.S. District Court of Kentucky is one of the first courts to recognize the lowly status of the farmer under a production contract by holding the integrator liable for pollution.¹⁰¹ The Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") and the Emergency Planning and Community Right to Know Act ("EPCRA") provide that federal, state, and local governments are to receive immediate notification of releases of hazardous substances into the environment so that these government agencies can initiate appropriate responses.¹⁰² However, section 103(f) of CERCLA states that no notification is required if the hazardous substance's release is continuous; due to this

94. *Id.*

95. *Id.*

96. *Id.* at 1272.

97. *Id.* at 1271.

98. *Id.*

99. JOHN EVERETT, EUCHA/SPAVINAW WATERSHED MANAGEMENT TEAM, SPECIAL MASTERS REPORT (2005), <http://www.law.utulsa.edu/support/media/ESWMT.ppt> (last visited April 14, 2006).

100. Shelia Stogsdill, *Animal Waste Caused Pollution, Study Shown; A Nonprofit Organization Released the Study After a Lawsuit Was Settled*, THE DAILY OKLAHOMAN, Nov. 22, 2003, available at 2003 WL 68214586.

101. *Sierra Club, Inc. v. Tyson Foods, Inc.* 299 F. Supp. 2d. 693, 719-720 (W.D. Ky. 2003).

102. See Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C.A. § 9603 (2006).

provision many companies, such as Tyson Foods, Inc., argue that the hazardous substance is continuous rather than episodic.¹⁰³ Under the terms of a typical production contract, it is the farmer who raises the chickens that is technically liable. In 2003, a federal court held in *Sierra Club v. Tyson Foods, Inc.*, that the integrators could be liable for reporting.¹⁰⁴ This case could be critical precedent for holding integrators liable in the future.

In *Sierra Club*, several Kentucky residents and the Sierra Club sued Tyson Foods Inc., for breaching the reporting rules of both CERCLA and EPCRA in neglecting to disclose the release of ammonia from four neighboring poultry operations.¹⁰⁵ Consisting of seventy broiler houses within a three county radius, all operated by Tyson, operation #1 consisted of twenty-four houses; operation #2 consisted of sixteen houses; operation #3 consisted of twenty-four houses; and operation #4 consisted of sixteen houses.¹⁰⁶ According to the Court, the broiler houses were “40 to 43 feet wide and 400 to 500 feet long and generally 50 to 60 feet apart.”¹⁰⁷ Delivering “between 160,000 and 180,000 chickens to a farm at a time, roughly enough to fill 8 chicken houses,” residents sought relief from the ammonia discharging in court.¹⁰⁸ The plaintiffs argued that the release of ammonia which is a by-product of chicken waste is a pollutant that should be regulated under federal law.¹⁰⁹ The District Court of Kentucky agreed, holding that Tyson’s relationship with its growers fits the EPCRA definition of operator as “someone who directs the workings of, manages, or conducts the affairs of a facility.”¹¹⁰ Under CERCLA analysis, the Court also determined that Tyson was the primary “person in charge” of all the operations involved.¹¹¹ Similar to an agency relationship, Tyson entrusts its chickens, feed, equipment, and management tactics to its growers.¹¹² Periodic visits by Tyson inspectors and record keeping requirements convinced the court that Tyson Foods Inc. was more than just a proprietor, but “a person in charge of the Tyson facility and is directly responsible for the alleged ammonia discharges from that chicken production facility.”¹¹³ Overall, the court held that the whole, combined farm site, rather than

103. *Id.* at 711-714.

104. *Id.* at 719-720.

105. *Id.* at 711-715.

106. *Id.* at 700-701.

107. *Id.* at 700.

108. *Id.*

109. *Id.* at 703.

110. *Id.* at 717.

111. *Id.* at 715-716.

112. *Id.* at 718-722.

113. *Id.* at 718.

each individual poultry house, was a “facility” under CERCLA, and the integrator, not the farmer was the “person in charge” of the production facilities.¹¹⁴

Tyson appealed the 2003 ruling, issuing an official statement claiming that the “growers are clearly in charge of their own operations, and we believe most of them would be opposed to any efforts to shift more control or responsibility to the company.”¹¹⁵ This statement illustrates how most integrators would rather the burden fall on the farmer than on themselves. Despite this pronouncement, Tyson went on to settle the case with Sierra Club, mooting the appeal.¹¹⁶ According to Sierra Club’s website, Tyson agreed “to spend a half a million dollars to study and report on emissions from its chicken operations and mitigate ammonia emissions that have been plaguing rural residents for years.”¹¹⁷ Hopefully, these two cases and the recent actions by Oklahoma’s Attorney General, Drew Edmondson discussed in Section VII will set a trend towards placing more liability on the integrator and less on the farmer.¹¹⁸

V. STATE REGULATIONS TO ADDRESS POULTRY LITTER APPLICATION

A. Arkansas Poultry Regulations

In 2003, Arkansas wrote three new laws to regulate the use of poultry litter. The first statute, Act 1061, codified as the “Arkansas Soil Nutrient Application and Poultry Litter Utilization Act,” is the most extensive piece of new legislation.¹¹⁹ To supplement the new legislation, the Arkansas Natural Resource Commission (“Commission”) set forth specific rules that govern the soil nutrient

114. *Id.* at 715-722.

115. Christopher Leonard, *Suit Turns Focus on Tyson-Contractor Deals*, ARKANSAS DEMOCRAT-GAZETTE, May 9, 2004, available at 2004 WL 78805585.

116. Sierra Club, *Sierra Club Lawsuit: Tyson Forced to Clean Up Its Act* (2005), www.sierraclub.org/environmentallaw/lawsuits/viewCase.asp?id=160 (last visited Apr. 14, 2006) (based on Tyson’s reported net income of \$66 million in 2004 and \$98 million in 2005, the amount that Tyson paid in damages is incidental compared to the damage that was caused to the environment). *See e.g.*, Tyson Food, Inc., News Release: Tyson Report Fourth Quarter and Fiscal Year 2005 Results (Nov. 14, 2005), <http://ir.tysonfoodsinc.com/phoenix.zhtml?c=65476&p=irol-newsArticle&ID=782290&highlight=>; (last visited Aug. 11, 2006).

117. *See* Sierra Club, *supra* note 116.

118. Complaint at 2, *State of Oklahoma v. Tyson Foods Inc.*, No. 05CV0329 JOE-SAJ (N.D. Okla. Jun. 13, 2005), available at [http://www.oag.state.ok.us/oagweb.nsf/9a798028e1753ff786256c16005d5855/2448aafc29ac39668625701f0067edbe/\\$FILE/Complaint.pdf](http://www.oag.state.ok.us/oagweb.nsf/9a798028e1753ff786256c16005d5855/2448aafc29ac39668625701f0067edbe/$FILE/Complaint.pdf).

119. An Act to Require Proper Application of Nutrients and Utilization of Poultry Litter in Nutrient Surplus Areas, 2003 Ark. Acts 1, 1 (codified as amended at ARK. CODE ANN. § 15-20-1101 (West 2004)).

and poultry litter application and management process.¹²⁰ To ensure adequate time for full compliance by the landowners and facilities, the Commission extended the Program's effective date to January 1, 2006.¹²¹ The Program's primary focus is to reduce poultry litter applications while maintaining an optimum plant growth level.¹²² The Commission is required to take into consideration the state's overall existing nutrient levels and devise ways to reduce the high nutrient content in the future.¹²³

To begin this task, the Commission assessed which areas contained the highest nutrient content, such as phosphorus and nitrogen, and labeled them as the Nutrient Surplus Areas because their nutrient content is too high to sustain continued application without leading to negative consequences to the environment.¹²⁴ The Nutrient Surplus areas are compiled in a list that specifies the geographic boundaries of each waterway and the county in which it is located.¹²⁵ The Illinois River which is ranked first on the list, runs primarily through Benton, Washington, and Crawford counties.¹²⁶ This Nutrient Surplus Area is located primarily in the Northern section of Arkansas.¹²⁷

Operators and landowners that reside in the Nutrient Surplus Area are required to maintain either a Poultry Litter Management Plan or Nutrient Management Plan under the supervision of a certified planner and applicator.¹²⁸ Only poultry operators that use, dispose, or store poultry litter are required to maintain a Poultry Litter Management Plan.¹²⁹ However, all other operators who apply various types of "fertilizers, litter, sewage sludges, compost and other Nutrient sources for soil fertility" are required to obtain a Nutrient Management Plan.¹³⁰ Under both the Poultry Litter Management Plan and the Nutrient Management Plan, the operators must record the time, place, and application method of their

120. Formerly known as the Arkansas Soil and Water Conservation Committee. See ARKANSAS SOIL AND WATER CONSERVATION COMMITTEE, RULES GOVERNING THE ARKANSAS SOIL NUTRIENT AND POULTRY LITTER APPLICATION AND MANAGEMENT PROGRAM, available at <http://www.aswcc.arkansas.gov/Title%202022.doc> (last visited Aug. 14, 2006) [hereinafter COMMITTEE RULES].

121. ARK. CODE ANN. § 15-20-1111(c)(2) (West 2004). See also Committee Rules, *supra* note 122, at 3.

122. COMMITTEE RULES, *supra* note 122, at 3; see also ARK. CODE ANN. § 15-20-1102(4) (West 2004).

123. ARK. CODE ANN. § 15-20-1105(1)-(8) (West 2004).

124. *Id.* § 15-20-1103(12).

125. *Id.* § 15-20-1104.

126. *Id.* § 15-20-1104(a)(1).

127. *Id.* § 15-20-1104.

128. *Id.* §§ 15-20-1107, 1108.

129. *Id.* § 15-20-1108.

130. *Id.* § 15-20-1103(11).

litter use.¹³¹ Operators located within the Nutrient Surplus Area can only apply the amount of nutrients specified in the Nutrient Management Plan.¹³² However, if the operator has not obtained a plan, nutrient application can not exceed the protective rate.¹³³ The protective rate is an estimate of how many nutrients are essential to cultivate a crop while avoiding any excess in application.¹³⁴ The nutrients must be disbursed evenly, especially when the soil is saturated with water, frozen or covered with snow.¹³⁵ Depending on the type of fertilizer, either litter or commercial, an operator may be required to conduct a soil test.¹³⁶ A soil test is only required when a commercial fertilizer contains phosphorus or when litter application exceeds the protective rate of 1.5 tons per acre.¹³⁷ Due to the high phosphorus concentration, any type of fertilizer that is applied in the Nutrient Surplus Area must undergo a soil test.¹³⁸ However, poultry litter and commercial fertilizers that contain nitrogen can be applied without a soil test since nitrogen has a lower concentration.¹³⁹

Nutrient application on residential land within the Nutrient Surplus Area is not required to obtain certification or a nutrient management plan.¹⁴⁰ Residential land is defined as two and one-half (2.5) acres or less. Although an owner may obtain a nutrient management plan voluntarily, an owner is only required to apply nutrients at the protective rate.¹⁴¹ In addition, the owner must also comply with the record keeping requirement of documenting the time, place and method of application for a minimum five year period to demonstrate compliance.¹⁴²

The Poultry Litter Management Plan is a more comprehensive version of the general Nutrient Management Plan which focuses on how to achieve an optimum level of nutrient value by applying the least amount of poultry manure as fertilizer.¹⁴³ However, the information collected under the Poultry Litter Management Plan is more extensive than the Nutrient Management Plan.¹⁴⁴ In addition to the basic general site information of the name, address, and phone numbers of each owner, the facility location and legal description of the land is re-

131. *Id.* §§ 15-20-1103(8), 1107.

132. *Id.* § 15-20-1106(a).

133. *Id.*

134. COMMITTEE RULES, *supra* note 122, at 10.

135. *Id.*

136. *Id.*

137. *Id.*

138. *Id.*

139. *Id.*

140. ARK. CODE ANN. § 15-20-1106(e)(2) (West 2004).

141. *Id.* § 15-20-1106(e)(1).

142. COMMITTEE RULES, *supra* note 122, at 11-13.

143. *Id.* at 14-18.

144. *Id.*

quired.¹⁴⁵ Additionally, the Poultry Litter Management Plan also collects poultry production information which includes the poultry type (broilers or layers), animal count, average weight of the birds, estimates of how much litter is produced, means of storage (whether it in lagoons or gallon drums), and the method of production, i.e. free range or confined.¹⁴⁶ Depending on the circumstances owners may also have to fulfill several permit requirements which may include any applicable federal, state or local permits, i.e. discharge or building permits, records of inspections, and planner certification.¹⁴⁷ Land application information consist of the date the Nutrient Management Plan was prepared, aerial maps of the litter applied areas, soil maps, land use designation, and individual field maps that specify buffer, waterway, wells, and surface water locations.¹⁴⁸ Additionally, land application also includes crop types, type of equipment used to apply the litter, expected seasons when litter is applied, an estimate of how many days litter is applied, and proposed land application rates per acre, specifically in ratio to the phosphorus index.¹⁴⁹ Activity record information includes records of soil tests, litter tests, month and year of when litter was applied, spill events of stored litter, a record accounting for litter that was not applied to the land but converted for another use, and a record of the internal inspection of litter storage, handling and application.¹⁵⁰ Mortality disposal information includes the methods and equipment used to dispose of dead carcasses.¹⁵¹

Once all this information is compiled by a Certified Planner, the Poultry Litter Management Plan is submitted to the Conservation District for approval.¹⁵² Funded by the USDA and the state government, the Conservation District assists local growers with devising a nutrient management plan that is specifically designed for that particular area.¹⁵³ The Conservation District is composed of a board which determines if each plan meets both federal and state standards.¹⁵⁴ If any essential information is lacking in a Poultry Litter Management Plan, the Conservation District is directed to provide the owner with written notice and the reasons for the denial.¹⁵⁵

145. ARK. CODE ANN. § 15-20-1108(b) (West 2004).

146. COMMITTEE RULES, *supra* note 122, at 15.

147. ARK. CODE ANN. § 15-20-1107 (West 2004).

148. *Id.*

149. COMMITTEE RULES, *supra* note 122, at 16.

150. *Id.*

151. *Id.* at 16-17.

152. *Id.* at 17.

153. Interview with Mr. Patrick Fisk, Representative of Arkansas Soil and Water Conservation Commission in CITY, Ark. (Apr. DAY, 2005).

154. COMMITTEE RULES, *supra* note 122, at 14-15.

155. *Id.*

If denied, the owner may appeal the decision within ninety days of the ruling to the Commission.¹⁵⁶ If the Executive Director denies the plan as well, the owner can appeal the decision within thirty days to the entire Commission for a final administrative decision, which can also be appealed to the state district court.¹⁵⁷

When a plan is approved, the owner must maintain records of all the activities that are included in the plan.¹⁵⁸ The Commission has a right to inspect the records at any time, once twenty four hour notice is given to the owner.¹⁵⁹ If the owner refuses to comply, or if there is suspicion of a potential violation, the owner will be subject to penalties.¹⁶⁰ If, after receiving a warning letter for the first violation, additional offenses are committed, a maximum fine of \$50 could be applied for the second violation, along with a \$2,500 penalty for a third violation if committed within the same year.¹⁶¹ Unlike the other statutes, all suspicions of a violation and complaints are subject to the Freedom of Information Act.¹⁶²

Second, Act 1060, codified as the "Arkansas Poultry Feeding Operations Regulation Act," contains provisions that, like Act 1059, invests policing powers with the Commission.¹⁶³ The Commission gave poultry feeding operations until March 31, 2005 to comply with its rules and regulations.¹⁶⁴ The overall purpose of the Act is to locate litter sources and estimate the amount of litter produced.¹⁶⁵ This is done by requiring facilities that contain over 2,500 birds to register specified information with the state.¹⁶⁶ The applicable facilities must register between January 1 and March 31 of each year.¹⁶⁷ After March 31, any newly built facilities must register by the next year.¹⁶⁸ Each facility must renew its registration information each year, which should include the following information: current

156. *Id.*

157. *Id.*

158. *Id.* at 9. This is reviewed annually by the certified planner; the records must include any litter sale or transfer documentation to a third party. If a third party transfers the litter to another person or applies it as a fertilizer, they must abide by the same record-keeping rules. *Id.* at 18. This could lead to a problem since a system for monitoring third party compliance is lacking.

159. ARK. CODE ANN. § 15-20-1112(2)(C) (West 2004).

160. COMMITTEE RULES, *supra* note 122, at 19.

161. *Id.*

162. *Id.* at 18.

163. An Act to Register Poultry Feeding Operations, 2003 Ark. Acts 1, 1 (codified as amended at ARK. CODE ANN. § 15-20-904 (West 2004).

164. COMMITTEE RULES, *supra* note 122, at 4.

165. ARK. CODE ANN. § 15-20-902 (West 2004).

166. COMMITTEE RULES, *supra* note 122, at 4.

167. *Id.*

168. *Id.*

address, bird type, number of birds, waste type, litter management system, storage system, purchase contracts for the sale of litter, the amount of litter stored, produced, removed, and transferred based on tonnage.¹⁶⁹ If a landowner or facility fails to register, provides false information, or restricts the Commission from inspecting any records, the owner will be subject to administrative penalties.¹⁷⁰

If anyone reports a possible violation of noncompliance, that individual is required to stipulate the reason for the complaint, along with their name and address.¹⁷¹ The complaint must be verified by a notarized signature of the complainant.¹⁷² The landowner or operator will be given a seventy-two hour notice before the land is inspected.¹⁷³ If a violation is present, the director will issue a warning letter for the first violation.¹⁷⁴ If the owner commits a second violation, he or she will be subject to a \$50 penalty.¹⁷⁵ For each subsequent violation, a penalty of up to \$500 can be assessed against the violator.¹⁷⁶

The operator can either consent to the penalties within thirty days of receiving the order, or the operator can dispute the charges by requesting a hearing in front of the Commission.¹⁷⁷ The Commission will determine the final administrative decision, leaving the owner with the right to appeal the ruling to the state district court.¹⁷⁸ Failure to respond to the notice within thirty days will imply consent.¹⁷⁹

Act 1059, codified as the “Arkansas Soil Nutrient Management Planner and Applicator Certification Act,” limits “the application of nutrients and regulate[s] the utilization of poultry litter to protect the area while maintaining soil fertility.”¹⁸⁰ Once again, the Commission was charged with developing regulations governing the administration of this Act.¹⁸¹ The Commission developed rules and regulations outlining the training of individuals who will become certified by the state to be Nutrient Management Planners to “prepare Nutrient Management Plans.”¹⁸² A nutrient plan is based on the crop type, existing nutrient

169. *Id.*

170. *Id.* at 6.

171. *Id.*

172. *Id.*

173. *Id.*

174. *Id.*

175. *Id.* at 7.

176. *Id.*

177. *Id.*

178. *Id.* at 8.

179. *Id.*

180. ARK. CODE ANN. § 15-20-1102(4) (West 2004).

181. Arkansas Soil Nutrient Management Planner and Application Certification Act, 2003 Ark. Acts 1, 1 (codified as amended at ARK. CODE ANN. § 15-20-1105 (West 2004).

182. COMMITTEE RULES, *supra* note 122, at 3, 5.

level in the soil, organic residuals, optimum timing, placement of nutrients, environmental resource protection and agronomic practices such as liming, tillage and crop rotation.¹⁸³ The plan will allow nutrient levels to be numerically maintained to avoid any excess when fertilizer is applied to the land. By promoting this program the general public will have the opportunity to learn about the detrimental effects that nutrient runoff has on the environment and become employed as a certified planner.

To become certified an individual must submit an application, attend a training course, and pass a state examination.¹⁸⁴ Once the applicant pays a \$25 testing fee and receives a passing score, a \$100 certification fee is also required.¹⁸⁵ Valid for five years, certification will expire on the first of January of the fifth year.¹⁸⁶ To maintain annual certification, a planner must attend at least four hours of continuing education courses.¹⁸⁷ This course is administered by the Commission or a pre-approved third party.¹⁸⁸ The planner must maintain a list of all the nutrient plans they have written including the landowner's name and the date of each plan.¹⁸⁹ If the planner fails to comply with the Commission's information request, provides false information, or offers a plan that does not meet the Commission's standards, he or she will be subject to administrative penalties.¹⁹⁰ If, after a warning letter, the planner commits a second violation, a maximum penalty of \$1,000 can be assessed per violation.¹⁹¹ The planner has thirty days to object to the charges.¹⁹² If the party still objects after a Commission hearing, the matter can be resolved in state district court; additionally, the Commission has reserved the right to suspend, revoke, annul, or withdraw a planner's certification.¹⁹³ A planner can only be reinstated if he or she has met the obligations the Commission has set out for them to complete.¹⁹⁴

In addition to these rules, Title XXI governs the applicator certification program under the Arkansas Soil Nutrient Management Planner and Applicator Certification Act.¹⁹⁵ This set of rules regulates individuals who are certified to

183. *Id.* at 3.

184. *Id.* at 5.

185. *Id.*

186. *Id.* at 6.

187. *Id.* at 6-7.

188. *Id.* at 7.

189. *Id.* at 8.

190. *Id.* at 9.

191. *Id.*

192. *Id.* at 10.

193. *Id.* at 9-11.

194. *Id.* at 10.

195. See ARK. CODE ANN. § 15-20-1105 (West 2004); COMMITTEE RULES, *supra* note

apply nutrients to land.¹⁹⁶ An individual can be certified as either a commercial or private applicator.¹⁹⁷ A private applicator is usually a poultry farm landowner or operator who controls the method of disposal.¹⁹⁸ A commercial applicator is an independent contractor that is hired by the landowner for the application of nutrients based on the landowner's instructions.¹⁹⁹ To become certified as a commercial applicator, the applicant must pay a \$25 testing fee, and a \$60 certification fee.²⁰⁰ A private applicator must pay a \$30 certification fee.²⁰¹ A private applicator must only pay a \$30 renewal fee every five years to maintain certification.²⁰² Compared to a commercial applicator, a private applicator is not required to attend continuing education courses or fulfill the testing requirement.²⁰³ Similar to the renewal requirements of a planner, a commercial applicator must attend at least four hours of training sessions by January first of every fifth year or the applicator's certification will expire.²⁰⁴ In addition, within this five-year period, the applicator must maintain records of the type and amount of nutrients applied on the field, nutrient source, location of where nutrients were applied, date of application, crop type, and name/address of the landowner.²⁰⁵ Failure to maintain proper records, or engage in fraudulent conduct, could lead to civil penalties.²⁰⁶ After a warning letter is issued for the first violation, if a second violation is committed, a penalty of up to \$50 can be enforced.²⁰⁷ If a third violation is committed within a year, a penalty of up to \$1,000 per violation can be enforced, along with suspension or revocation of the applicator's certification.²⁰⁸ The violator has thirty days to object to the charges, and if after a Commission hearing, the party still objects, the matter can be resolved in state district court.²⁰⁹

B. Oklahoma's Regulations

Although Arkansas's new rules are a great start to a problem that has persisted for years, Oklahoma recognized the need for legislation seven years

-
196. COMMITTEE RULES, *supra* note 122, at 3.
197. *Id.* at 5.
198. *Id.*
199. *Id.*
200. *Id.* at 6.
201. *Id.*
202. *Id.* at 8.
203. *Id.*
204. *Id.*
205. *Id.* at 9.
206. *Id.* at 10-11.
207. *Id.* at 11.
208. *Id.*
209. *Id.* at 11-13.

earlier to reduce the high level of phosphorus from litter use.²¹⁰ The detailed layout of the Nutrient and Poultry Litter Application and Management Plan Program represents the same structure of Oklahoma's legislation regarding the operation of poultry and litter application. Poultry Operators must also maintain an animal waste management plan and a conservation plan all under a certified planner, plus register the facility annually with the state.²¹¹ However, when it comes to violations of noncompliance, Oklahoma assesses a penalty of no more than \$200 per day, considering each day a new violation.²¹² Arkansas's violation policy differs in that it is based on a flat rate, which is capped at a maximum fine of \$2,500 per violation under the Nutrient and Poultry Litter Application and Management Plan Program.²¹³

To deal with the overflow of litter, Oklahoma established the Poultry Waste Transfer Act.²¹⁴ The purpose of the Act is to move the litter out of the high nutrient content areas of the state.²¹⁵ The Oklahoma Department of Agriculture set up the Poultry Waste Transfer fund to finance the project through the State Treasury.²¹⁶ All monies in the fund remain separate from the general state budget.²¹⁷ To ensure that all the funds are only allocated towards litter removal, the Oklahoma Department of Agriculture is required to submit an annual financial report to the Governor and the Legislature every three years.²¹⁸ Legislation like this indicates how Oklahoma is concerned about its drinking water supply, specifically regarding the Illinois River. Although Arkansas's current regulations does mimic Oklahoma's in some aspects, that was not of any concern to many Arkansas farmers who voiced their opposition during the notice and comment sessions prior to the rules becoming final.

C. Farmer Opposition

Once the rules were written and published, the Commission conducted a notice and comment session around the state during February and March of

-
- 210. OKLA. STAT. tit. 2, § 10-9.1 (1998).
 - 211. *Id.*, § 10-9.19a (1998).
 - 212. *Id.* § 10-9.11.
 - 213. COMMITTEE RULES, *supra* note 122, at 19.
 - 214. OKLA. STAT. tit. 2, § 10-9.13 (1998).
 - 215. *Id.*
 - 216. *Id.*
 - 217. *Id.*
 - 218. *Id.* § 10-9.15.

2004.²¹⁹ This allowed farmers the opportunity to express their views and recommend changes prior to the final rules becoming effective.

In six public meetings that were held across Arkansas in the spring of 2004, many farmers expressed their disfavor regarding the proposed regulations.²²⁰ After months of opposition to the new poultry litter regulations, the Commission realized the need for farmer involvement before the new laws became effective. By establishing an advisory committee that was comprised of poultry farmers and litter applicators, which lived in areas high in nutrient content, farmers were allowed to express their views to the Arkansas legislature.²²¹ The objective, according to Randy Young, Director of the Commission was “to get direct input from them.”²²² Some farmers saw it as another attempt on the Commission’s part to gain support for regulations that was going to put them out of business.²²³ According to Greg Copeland, a poultry farmer in Prairie Grove, “[the Commission] did a pretty sorry job of convincing us that there is a problem emanating from our farms.”²²⁴ Many farmers like Copeland live under the disbelief that the use of litter as a fertilizer is not causing detrimental effects to the environment.

A lot of farmers believe that most of the Commission’s evidence to substantiate the need for regulation is based on hypothetical information.²²⁵ Some argue that waste water plants, not poultry litter, are the primary polluter.²²⁶ Based on an interview that the ARKANSAS DEMOCRAT GAZETTE had with Phillip Moore, a researcher at the University of Arkansas, it seems like there is a lack of research funding when it comes to determining how much wastewater plants contribute to phosphorus contamination.²²⁷ Just like litter, the discharge from wastewater treatment plants also contains high amounts of nutrients such as

219. *Commission Sets 6 Meetings on Litter Use*, ARKANSAS DEMOCRAT-GAZETTE, Feb. 12, 2004, at 7, available at 2004 WL 57532675.

220. Jason Schultz, *Farmers Frustrated by Litter Proposals: 100 Attend Hearing in Springdale*, ARKANSAS DEMOCRAT-GAZETTE, Feb. 25, 2004, at 10.

221. Robert J. Smith, *Farmers to Join Rules Panel Poultry Growers Will Help Assess Litter Regulations*, ARKANSAS DEMOCRAT-GAZETTE, Mar. 3, 2004, at 13, available at 2004 WL 75955040.

222. *Id.*

223. Robert J. Smith, *Farmers Voice Displeasure Over New Rules State Litter Regulations Unfair, They Complain at Area Hearings*, ARKANSAS DEMOCRAT-GAZETTE, June 29, 2004, at 9, available at 2004 WL 84074819.

224. Schultz, *supra* note 222, at 10.

225. *Id.*

226. *Id.*

227. *Id.*

phosphorus and nitrogen.²²⁸ Unfortunately, there is a lack of information to estimate the amount of pollution that each source contributes to the problem.²²⁹

Ironically, the initial dispute of *Oklahoma* started from facility waste water, and now that the blame has been shifted to the poultry industry, many farmers are looking to shift the blame back. Based on Moore's personal opinion, the nutrient runoff from litter and the discharge from the wastewater plant, each account for half of the pollution.²³⁰

Forcing farmers to apply better management practices is seen as a compromise in the eyes of Oklahoma and the environment. Due to farmer opposition Arkansas's compromise with Oklahoma to improve regulations was amended to satisfy some of the farmers' request for change.²³¹ Hopefully, the farmer opposition will not force the state to weaken its regulations. Unfortunately, farmers are not the only group opposed to the way Arkansas regulates poultry production.

VI. LATEST DEVELOPMENTS

The days of pointing fingers have not come to an end. According to Oklahoma's Attorney General Drew Edmondson, he "expects Arkansas poultry companies to accept responsibility for excess poultry litter in Oklahoma scenic river watersheds, and he'll sue them if they don't."²³² Rejecting a settlement offer from five poultry companies including Tyson Foods Inc., Peterson Farms Inc., Simmons Foods Inc., George's Inc., and Cargill Inc., in early September 2004, Edmondson informed the companies that he had retained counsel.²³³ The companies were left with no option but to accept litigation or to sign a proposed settlement agreement allocating a certain amount of money to remediation expenses.²³⁴

Edmondson's "take it or leave it" attitude towards the three year negotiation process led the Oklahoma House of Representatives to pass a bill that would limit the attorney general's power to file a lawsuit.²³⁵ Fortunately, the bill stalled

228. James Fredrick, Paul R. Noland Wastewater Treatment Facility Handout and Conversation with Facility Tour Guide in March, 2005.

229. Schultz, *supra* note 222, at 10.

230. *Id.*

231. *Id.*

232. Smith, *supra* note 92, at 1B.

233. *Id.*

234. Brian Babber & Barbara Hoberock, *Poultry Firms Offer Litter Plan*, TULSA WORLD, Sept. 10, 2004, at A-1.

235. Associated Press, *Poultry Behind Bill to Limit Attorney General's Authority*, Feb. 28, 2005, <http://www.kotv.com/main/home/storiesPrint.asp?id=78665&type=t> (last visited April 14, 2006).

in the Senate Judiciary Committee.²³⁶ If passed, Oklahoma would have been the only state in the U.S. to limit its attorney general's power to file a lawsuit.²³⁷ The bill would have required the attorney general to obtain consent from the governor or the Legislature before filing a lawsuit.²³⁸ Ironically, the state that once seemed to be united when it came to water issues is now split. Oklahoma farmers argue that filing a lawsuit would destroy their livelihood, but some state officials like Susan Kimball, Mayor of Owasso, supports Edmondson's persistence, "Oklahoma need[s] a free and independent Attorney General, with the ability to make sometimes unpopular decisions."²³⁹ With Edmondson's power no longer in jeopardy, on June 13, 2005 he filed a lawsuit against fourteen integrators.²⁴⁰

In October of 2005, the poultry companies named 161 Oklahoma citizens, cities, and businesses as third-party defendants in order to shift some of the blame.²⁴¹ In an October 2005 press release, Edmondson stated that "[t]his is strictly a stunt to apply political pressure to my office. If the industry was really serious about naming third party defendants, why are all their defendants located in Oklahoma?"²⁴² In retaliation the Arkansas Attorney General Mike Beebe filed a petition requesting the U.S. Supreme Court to resolve the water-quality dispute between the two states since it has original jurisdiction.²⁴³ According to Edmondson "it's politics, and . . . it stinks for the AG to be carrying water for corporate polluters."²⁴⁴ Edmondson believes that Beebe's actions are just another political tactic to ensure his upcoming success in the 2006 Governors race.²⁴⁵ According to Beebe, "Arkansas people should be governed by Arkansas laws"

236. Interview with Oklahoma Attorney General's office assistant in Oklahoma City, Okla. (Oct. DAY 2005).

237. Associated Press, Poultry behind Bill to Limit Attorney General's Authority, Feb. 28, 2005, <http://www.kotv.com/main/home/storiesPrint.asp?id=78665&type=t> (last visited April 14, 2006).

238. *Id.*

239. Oklahoma Farm Bureau, Farm Bureau Launches Campaign Supporting Poultry Industry (Jan. 3, 2005), http://www.okfarmbureau.org/news/newsReleases2005/nr01-03-05_4.asp (last visited April 14, 2006). *See also* Kim MacLeod, Area Mayors Show Support for Attorney General in Poultry Issue (Mar. 16, 2005), *available at* <http://www.cityoftulsa.org/Text+Only/press+releases/05-060.htm>.

240. W.A. Drew Edmondson, Attorney General, Industry Blames 161 For Waste in Watershed (Oct. 4, 2005), <http://www.oag.state.ok.us/oagweb.nsf/096CD7F7814274AD58625709000711526!Open> (last visited April 14, 2006).

241. *Id.*

242. *Id.*

243. *Arkansas v. Oklahoma*, 126 S. Ct. 1428, (2005) (motion for leave to file a bill of complaint denied).

244. Robert J. Smith, *Oklahoma Water Suit Crosses Line, Beebe Says*, ARKANSAS DEMOCRAT-GAZETTE, Nov. 4, 2005, at 1B.

245. *Id.* ("I don't think he'd have done it if he wasn't running for governor").

and the state should not be forced to meet Oklahoma water quality standards.²⁴⁶ Fortunately for Edmondson, the U.S. Supreme Court denied Beebe's request for review in February 2006.²⁴⁷ On March 31, 2006, Edmondson was granted permission by a federal court judge in Tulsa to begin the process of collecting water, soil, and litter samples from the surrounding area along the Illinois River.²⁴⁸ As the election season draws near, one could question whether both Edmondson and Beebe's actions are efforts to gain political notoriety or to enforce their state's rights. The reality is no matter who is in office the presence of nutrient contamination will persist beyond their terms in office.

VII. ALTERNATIVE USES OF FERTILIZER

In recognizing the pollution problems associated with the overuse of litter in areas high in nutrient content, it is important to consider alternate disposal methods for poultry litter. For example, composting, chemical treatment, and thermo-chemical conversion have been proposed as viable but expensive options.²⁴⁹ Composting breaks down animal waste into a soil fertilizer through decomposition.²⁵⁰ Compost helps retain nutrients longer in the soil to reduce the rate of runoff.²⁵¹ Chemical treatment involves treating poultry waste with chemicals to reduce the odor or devising a steam-heated dry kiln facility that burns the litter for boiler fuel.²⁵² Thermo-chemical conversion can also be used to convert manure into crude oil.²⁵³ Fueled by heat, the process allows organic matter to be transformed into an energy source.²⁵⁴

In order to turn a profit, many farmers sell litter as a fertilizer to other landowners. The Arkansas Litter Subsidy program allows farmers who reside in high nutrient content areas to transport litter to parts of the state where litter use is minimal.²⁵⁵ Funded by a federal grant of \$500,000 and contributions of \$310,914 from various poultry companies the program pays truckers five cents

246. *Id.*

247. *Arkansas*, 126 S. Ct. at 1428.

248. Robert J. Smith, *Governor to Beebe: Get Back in Dispute Over Water Sampling*, ARKANSAS DEMOCRAT GAZETTE, Apr. 1, 2006, at 1B.

249. Yuanhui Zhang, Kim Ocfemia, & Malia Appleford, *Swine Oil*, MECHANICAL ENGINEERING MAGAZINE, June 2004, available at <http://www.thepoultrysite.com/FeaturedArticle?FATopic.asp?AREA=WasteOdour&Display=223>.

250. See Miller, *supra* note 36, at 306-307.

251. *Id.*

252. Smith, *supra* note 28.

253. Zang et al., *supra* note 251.

254. *Id.*

255. Robert J. Smith, *State Doubles its Incentive to Haul Poultry Litter out of Water-sheds*, ARKANSAS DEMOCRAT-GAZETTE, Mar. 15, 2005, at 1B.

per mile per ton for hauling litter across the state.²⁵⁶ If the litter is hauled out of Northwest Arkansas, truckers are given a \$2 incentive.²⁵⁷ Between 2004 and 2005, Arkansas's goal was to remove an average of 40,000 tons of litter per year.²⁵⁸ Unfortunately, participation in the program has been slow, with few farmers and trucking companies involved.²⁵⁹ This program is just another example of how Arkansas's new approach coincides to Oklahoma's, who has a plan similar to this one.

Free range, pastured, or organic methods are becoming a favorite compared to the confined methods of commercial production.²⁶⁰ Free range farmers raise chickens on open land, offering the chickens the opportunity to forage and roam free.²⁶¹ Pasture farming, involves confining the chickens in field pens which are moved two to three times a day, allowing the birds to forage on fresh grass daily.²⁶² Because these methods do not involve the same concentration of birds in a small area, far less litter is produced.

VI. CONCLUSION

With each state knowing the ramifications of non-point source pollution, states like Oklahoma and Arkansas should be more willing to work together than apart. With the conflict between the two states still persisting after twenty years, the present lawsuit filed by Edmondson seems to be the only step in the right direction. Since integrators are so unwilling to accept responsibility for their actions the only approach left is litigation. This is unfortunate since like in *Tulsa* an enormous amount of money is being spent on attorney's fees and less on cleanup. Overall, state regulations and integrator liability are the two tools needed to resolve the problems of runoff. Through case law precedent and state regulations, integrator liability will eventually increase, forcing integrators to reduce their amount of control over operations or accept the burden of liability. Until integrators are held liable in court and by states, the problems of runoff and high nutrient levels will continue to cause devastating effects on the environment.

256. *Id.*

257. *Id.*

258. *Id.*

259. *Id.* (as of March 2005, only thirty farmers and four trucking companies were involved in the litter removal program).

260. Fanatico, *supra* note 11.

261. Smith, *supra* note 28.

262. *Id.*