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COMMENT

Hogwash! Why Industrial Animal Agriculture is Not Beyond the Scope of Clean Air Act Regulation

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I. INTRODUCTION

Air pollution from agriculture is a reasonably new phenomenon. When the Clean Air Act¹ (CAA) was drafted in 1970, legislators excluded agriculture, since at that time farms could hardly be considered serious sources of air pollution. The traditional “family” farm²—the dominant agricultural model when the CAA emerged—is relatively small in scale and light on the land, and not a serious pollution threat. Farming, however, is not what it once was. While the United States still has a large contingent of family farmers, this group is quickly diminishing.³ Replacing the

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1. Air Pollution Prevention and Control Act, 42 U.S.C. §§ 7401-7671q (2006).

2. “A family farm is not defined by its size, but rather by the fact that the family provides the vast majority of the labor and management decisions. . . . The common goal of family farmers is farm sustainability—both economically and environmentally.” National Family Farm Coalition, What is a Family Farm?, <http://www.nffc.net/what/familyfarm.html> (last visited Jan. 17, 2007).

3. See, e.g., Dana L. Jackson, *The Farm as Natural Habitat*, in THE FARM AS NATURAL HABITAT: RECONNECTING FOOD SYSTEMS WITH ECOSYSTEMS 13, 15 (Dana L. Jackson & Laura L. Jackson eds., 2002) [hereinafter *The Farm as Natural Habitat*] (Between 1992 and 1997 four dairy farmers went out of business each day); Andrew Kimbrell, *Myth Three: Industrial Food is Cheap*, in THE FATAL HARVEST READER: THE TRAGEDY OF INDUSTRIAL AGRICULTURE 15, 17

family farm is an entirely new breed of farming—industrial agriculture—which has become a substantial source of air pollution across the country.⁴

In this “transformation of America from an essentially agrarian culture to one that is now almost completely industrialized,”⁵ virtually no aspect of agriculture has gone untouched.⁶ However, this article’s discussion of industrial agriculture focuses only on livestock, as industrial animal agriculture has become a prominent concern of policy-makers, scientists, and citizens in recent years.⁷ Of particular concern are “animal feeding operations” or “AFOs,” which are enterprises that raise hundreds, thousands, and in some cases, millions of farm animals in confinement.⁸ Approximately 450,000 AFOs are in operation in the United States.⁹ AFOs that raise particularly large numbers of animals are called “concentrated animal feeding operations,” or “CAFOs.”¹⁰ Approxi-

(Andrew Kimbrell ed., 2002) [collection hereinafter *FATAL HARVEST READER*] (Seventy-five years ago there were nearly seven million farmers in America; in 2002 there were only two million. The United States lost an average of 32,500 farms annually between 1987 and 1992, most of which were family run.).

4. See Andrew Kimbrell, *Seven Deadly Myths of Industrial Agriculture*, in *FATAL HARVEST READER*, *supra* note 3, at 3, 3.

5. Douglas Tompkins, *Prologue* to *FATAL HARVEST READER*, *supra* note 3, at viii, viii.

6. See generally *FATAL HARVEST READER*, *supra* note 3, at *passim*.

7. See, e.g., AD HOC COMM. ON AIR EMISSIONS FROM ANIMAL FEEDING OPERATIONS, COMM. ON ANIMAL NUTRITION, NAT’L RES. COUNCIL, ET AL., *AIR EMISSIONS FROM ANIMAL FEEDING OPERATIONS: CURRENT KNOWLEDGE, FUTURE NEEDS* (2003); CLAUDIA COPELAND, CONG. RESEARCH SERV., LIBRARY OF CONG., *AIR QUALITY ISSUES AND ANIMAL AGRICULTURE: A PRIMER* (2005) [hereinafter *COPELAND, PRIMER*]; Jenny Filipy et al., *Identification and Quantification of Volatile Organic Compounds from a Dairy*, 40 *Atmospheric Env’t* 1480 (2006).

8. See *COPELAND, PRIMER*, *supra* note 7, at 1 (calling AFOs “enterprises where animals are raised in confinement”); see also, KEN MIDKIFF, *THE MEAT YOU EAT: HOW CORPORATE FARMING HAS ENDANGERED AMERICA’S FOOD SUPPLY* 22 (2004) (referring to the “sheer size” of confinement operations: “5000 cows, 80,000 hogs or 2 million chickens”).

9. EPA, National Pollutant Discharge Elimination System (NPDES): Animal Feeding Operations Frequently Asked Questions, http://cfpub.epa.gov/npdes/faqs.cfm?program_id=7 (last visited Jan. 20, 2006) [hereinafter *AFO FAQs*].

10. The distinction between AFOs and CAFOs is not always made, and often, environmental groups and agencies will use the term interchangeably. However, the EPA has promulgated regulations that specify exactly when an AFO will be classified as a CAFO. See *Concentrated Animal Feeding Operations*, 40 C.F.R. § 122.23 (2006). At what point this differs for every type of animal raised. See 40 C.F.R. § 122.23(b)(2), (4), (6). For example, an AFO is a “Medium CAFO” with 200-999 dairy cows, 750-2499 pigs, or 9000-29,000 chickens. *Id.* § 122.23(b)(6).

mately 18,700 AFOs in the United States are classified as CAFOs.¹¹

Notwithstanding the numerous problems associated with AFOs, or “factory-style farms,”¹² including the displacement of family farms, the destruction of rural communities, animal welfare concerns, and human health problems, AFOs create substantial air and water pollution.¹³ Unnaturally high concentrations of animal excrement sit for months or even years in on-site waste storage “lagoons.”¹⁴ The animal waste frequently leaks from lagoons into groundwater, and when it is applied to the land, runs off into streams and lakes, harming ecosystems and threatening human health.¹⁵

Furthermore, decomposing manure in lagoons emits high levels of pollutants like volatile organic compounds (VOCs), particulate matter (PM), methane, ozone, ammonia, and hydrogen sulfide (H₂S), which in turn cause a range of devastating health and environmental impacts, including asthma and other respiratory diseases, acid rain, and global warming.¹⁶ While Congress responded to industrial animal agriculture’s threat to the nation’s water supply by including an express provision in the Clean Water Act (CWA)¹⁷ to regulate CAFOs,¹⁸ the CAA, includes no such provision to protect the nation’s air quality.¹⁹

Clearly, agriculture has changed. Yet, federal air pollution laws have not responded. This article examines why the CAA—

11. Office of Enforcement & Compliance Assurance, EPA, Compliance and Enforcement National Priority: Clean Water Act, Wet Weather, Concentrated Animal Feeding Operations 2 (Oct. 2006), <http://www.epa.gov/compliance/resources/publications/data/planning/priorities/fy2005prioritycwacafo.pdf>.

12. AFOs and CAFOs are often referred to as factory-farms or factory-style farms. See, e.g., Kimbrell, *supra* note 4, at 3. Throughout this article, AFOs are referred to as factory-style farms.

13. See *id.* (providing a good overview of the range of problems of industrial agriculture).

14. See Grace Factory Farm Project, Is Your Meat Fit to Eat?, <http://www.factoryfarm.org/whatis/3.php> (last visited Jan. 20, 2007) (explaining what a “lagoon” is); see also MIDKIFF, *supra* note 8, at 12-13 (explaining the excessive manure in single-location storage and its unnaturalness).

15. COPELAND, PRIMER, *supra* note 7, at 1; See Grace Factory Farm Project, *supra* note 14 (A lagoon spill killed ten million fish and closed hundreds of thousands of acres of coastal wetlands shell fishing.).

16. COPELAND, PRIMER, *supra* note 7, at 2-5.

17. Clean Water Act, 33 U.S.C. §§ 1251-1387 (2006).

18. *Id.* § 1362(14). The CWA regulates CAFOs under its National Pollutant Discharge Elimination System (NPDES) permit program. See *id.* § 1342(a).

19. See Air Pollution Prevention and Control Act, 42 U.S.C. §§ 7401 to 7671q (2000).

the primary federal air pollution law—has not been used to react to this new type of animal agriculture with an effective regulatory scheme. The article focuses in particular on the Environmental Protection Agency's (EPA) Air Compliance Agreement,²⁰ which is not an effective response to the need to regulate emissions from factory-style farms, but rather an effort to further delay regulation. This article demonstrates that AFOs are considered industrial sources of pollution elsewhere under the law, and argues that the CAA should likewise treat AFOs as such. It concludes that environmental regulators must realize that at some point an agricultural operation shifts from benign farm to polluting industrial operation, and at that point, must be treated accordingly under the CAA.

Part II of the article provides background information on the animal agriculture industry, explaining the reasons for the shift from the family farm to the factory farm, discussing the adverse environmental and health impacts of factory-style farms, and exploring why the government has declined to regulate AFOs under the CAA. Part III provides background information on the CAA, including its regulatory framework and its success as a regulatory tool.

Part IV discusses how AFOs are treated as industrial sources of pollution elsewhere under the law. Next, Part V discusses the EPA's Air Compliance Agreement in detail, arguing that it is a woefully inadequate response to the lack of regulation of AFO air emissions. Finally, Part VI proposes that a better response would be to develop a framework for regulation of AFOs under the CAA. This section proposes regulatory mechanisms that the EPA could use to begin curbing AFO emissions under the CAA.

II. BACKGROUND INFORMATION ON FACTORY FARMING

A. The Shifting Livestock Sector – From Family Farm to Factory Farm

At the turn of the twentieth century, half of all Americans were farmers.²¹ These early farmers created natural farm man-

20. Animal Feeding Operations Consent Agreement and Final Order, 70 Fed. Reg. 4958 (Jan. 31, 2005) [hereinafter *Air Compliance Agreement*].

21. MIDKIFF, *supra* note 8, at 2. Contrast this to agriculture at the turn of the twenty-first century when less than two percent of Americans in 1997 were farmers. Jackson, *supra* note 3, at 24.

agement systems, using livestock and diverse crops to control pests and return nutrients to the land.²² By the end of World War II, however, the use of synthetic fertilizers and chemical pesticides had largely replaced natural farm management systems.²³ Manure was no longer needed to fertilize crops, and livestock and crops became increasingly separated.²⁴

Like most of the production of goods in America, farming further evolved into an industrialized process. Poultry production led the way, introducing the first industrialized farming methods in the 1960s.²⁵ Hog farms, dairies, and other livestock operations followed suit.²⁶ Most livestock operations today are not run by family farmers living on their own farms. The people who run modern livestock operations often work for agricultural corporations, or “agribusinesses,” with some of the largest including Tyson and Smithfield.²⁷ Agribusinesses form contracts with livestock growers; under each contract, the corporation, or “integrator,” provides animals, feed, medications, and veterinary care; and the grower manages the animals.²⁸ This type of livestock production is called “vertical integration,” and has become the dominant corporate structure for livestock production.²⁹

B. Animal Feeding Operations Described

The AFO, described in Part I, is the chosen model of the vertically integrated livestock operation.³⁰ The EPA describes AFOs as “agricultural enterprises where animals are kept and raised in confined situations. AFOs congregate animals, feed, manure and

22. Brian A. DeVore, *Nature's Backlash*, in *THE FARM AS NATURAL HABITAT*, *supra* note 3, at 27, 33 (“For example, a farmer would raise cattle on hay, oats, corn, and pasture. The manure from those cattle went back to the land that produced the feed, and the cycle started over again.”).

23. *See id.* (Farmers found that fertilizers and chemical pesticides made rotation farming “superfluous.”).

24. *Id.*

25. Christopher B. Connard, Comment, *Sustaining Agriculture: An Examination of Current Legislation Promoting Sustainable Agriculture as an Alternative to Conventional Farming Practices*, 13 PENN ST. ENVTL. L. REV. 125, 129 (2004).

26. *Id.*

27. Susan M. Brehm, Comment, *From Red Barn to Facility: Changing Environmental Liability to Fit the Changing Structure of Livestock Production*, 93 CAL. L. REV. 797, 803 (2005).

28. *Id.* at 805. Medications administered to confined animals include routine doses of antibiotics, which are outside the scope of this article, but are another serious health threat stemming from industrial animal agriculture.

29. *See generally id.* at 804-11 for a discussion of vertical integration.

30. *Id.* at 809.

urine, dead animals, and production operations on a small land area. Feed is brought to the animals rather than the animals grazing or otherwise seeking feed in pastures, fields, or on rangeland.”³¹ AFOs confine animals in anywhere from three to thirty buildings; the animals are kept in cages on slatted cement floors which allows waste to fall into holding areas beneath.³² Animal waste is abundant in these types of operations; one cow produces the same amount of waste that twenty-three people create,³³ and a CAFO with 500,000 hogs produces 6.5 million pounds of waste per day, or as much as a city the size of Philadelphia.³⁴ Because it can be difficult for the land to absorb such high concentrations of animal waste, the waste on AFOs is instead pumped into waste storage “lagoons,” some of which can be as large as eight acres.³⁵ Waste is stored in lagoons until land becomes available on which to spread the waste.³⁶

C. The Link Between Factory Farming and Air Quality Impacts

Livestock farms have always caused some degree of air pollution—pigs smell, there is no doubt. While animal farms have traditionally been considered to create mere annoyances, today’s AFOs create serious environmental and health threats.³⁷ The breakdown of animal waste creates numerous harmful pollutants, including ammonia (NH₃), nitrous oxide (N₂O), hydrogen sulfide (H₂S), volatile organic compounds (VOCs), and particulate matter (PM).³⁸ These pollutants are emitted from “barns, feedlot surfaces, manure storage and treatment units . . . but air emissions

31. AFO FAQs, *supra* note 9. EPA regulations define an AFO as: [A] lot or facility (other than an aquatic animal production facility) where the following conditions are met:

(i) Animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and
(ii) Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

40 C.F.R. § 122.23(b)(1).

32. Brehm, *supra* note 27, at 808-09.

33. See Scott Jerger, *EPA’s New CAFO Land Application Requirements: An Exercise in Unsupervised Self-Monitoring*, 23 STAN. ENVTL. L.J. 91, 94 (2004).

34. Brehm, *supra* note 27, at 811.

35. See Grace Factory Farm Project, *supra* note 14 (discussing a 1995 waste spill from an eight-acre lagoon).

36. Brehm, *supra* note 27, at 809.

37. See *id.* at 812-14.

38. COPELAND, PRIMER, *supra* note 7, at 2-5. VOCs and PM are both criteria pollutants under the CAA. See discussion *infra* Part III.B.

come mostly from the microbial breakdown of manure stored in pits or lagoons and spread on fields.”³⁹

1. The Pollutants

a. Ammonia

Ammonia is the most prolific air pollutant from animal agriculture, and like most AFO pollutants, comes from the breakdown of animal waste.⁴⁰ Nitrogen in manure is converted to ammonia, which escapes from waste lagoons and combines with other elements to form ammonium nitrate and ammonium sulfate.⁴¹ Ammonia is then re-deposited through rainfall into lakes and streams, adding to oxygen depletion, excessive algae growth, and acidification of the environment.⁴² Ammonia from animal waste accounts for an estimated half of the total natural and human-induced ammonia emissions each year in the United States.⁴³ Health effects from this pollutant include chronic bronchitis, asthma, other respiratory ailments, and at high levels, may cause death.⁴⁴ Farmworkers and neighboring residents are particularly affected.⁴⁵

b. Particulate Matter, Volatile Organic Compounds, and Hydrogen Sulfide

PM refers to airborne particular matter that is, for regulatory purposes, either less than 2.5 microns (PM_{2.5}) or less than 10 microns (PM₁₀) in diameter.⁴⁶ PM₁₀ affects the respiratory tract, while PM_{2.5} affects both the respiratory tract and contributes to regional haze.⁴⁷ VOCs likewise harm human health, irritating

39. COPELAND, PRIMER, *supra* note 7, at 2.

40. *Id.* at 2-3, 5.

41. *Id.* at 3.

42. *Id.*

43. *Id.*

44. *Id.*; Brehm, *supra* note 27, at 814.

45. A North Carolina study showed that that people living close to hog CAFOs suffered disproportionate levels of tension, anger, confusion, fatigue, depression, and lack of overall vigor, as well as more upper respiratory and gastrointestinal ailments than neighbors of other types of farms and non-livestock areas. An Iowa study showed both neighbors of hog CAFOs and CAFO workers suffering from similar ailments such as bronchitis, asthma, flu-like illnesses, and upper-air inflammation. Twenty-five percent of workers at hog CAFOs suffer from chronic health problems like bronchitis. Sierra Club, Clean Water and Factory Farms: Reports and Factsheets: Air Pollution from Factory Farms, <http://www.sierraclub.org/factoryfarms/factsheets/air.asp> (last visited Jan. 20, 2007).

46. COPELAND, PRIMER, *supra* note 7, at 3.

47. *Id.* at 4.

the skin, eyes, nose, and throat, and the environment, forming PM_{2.5} and ozone (smog).⁴⁸ Hydrogen sulfide also causes respiratory and cardiovascular irritation, headaches, and in high concentrations, brain damage or death.⁴⁹ The Minnesota Pollution Control Agency, for example, reported some CAFOs emitting levels of hydrogen sulfide that exceeded state standards by up to fifty times.⁵⁰ The pollutant is also far-reaching, having been found in the air at unsafe levels nearly five miles from its source.⁵¹

c. Methane and Nitrous Oxide

Methane and nitrous oxide are two other common by-products of industrial animal agriculture which are known contributors to global warming.⁵² Methane is emitted directly from ruminant animals and from the microbial breakdown of manure.⁵³ According to the EPA, twenty-five percent of methane emissions in the United States come from livestock.⁵⁴ Nitrous oxide also stems from waste decomposition, which accounts for six percent of nitrous oxide emissions nationwide.⁵⁵

2. California Illustrates Factory Farming's Effects on Air Quality

California offers a particularly grave illustration of how factory-style farming harms air quality. California is home to 76,500 farms,⁵⁶ and is the biggest farm economy in the United States.⁵⁷

48. *Id.*

49. *Id.*; Natural Res. Def. Council, Facts about Pollution from Livestock Farms, <http://www.nrdc.org/water/pollution/ffarms.asp> (last visited Jan. 17, 2007) ("In 1998, the National Institute of Health reported that 19 people died as a result of hydrogen sulfide emissions from manure pits.").

50. J.B. Ruhl, *Farms, Their Environmental Harms, and Environmental Law*, 27 *ECOLOGICAL Q.* 263, 292 n.171 (2000).

51. Sierra Club, Clean Water: That Stinks, http://www.sierraclub.org/cleanwater/that_stinks/ (last visited Jan. 11, 2007). Similarly, "[c]hildren at a day care center in Minnesota experienced diarrhea, nausea and headaches due to hydrogen sulfide poisoning caused by air emissions from a factory farm over a mile away." *Id.*

52. COPELAND, PRIMER, *supra* note 7, at 4.

53. *Id.*

54. *Id.*

55. *Id.*

56. Nat'l Agric. Statistics Serv., U.S. Dep't of Agric., California State Agriculture Overview - 2005, http://www.nass.usda.gov/Statistics_by_State/Ag_Overview/AgOverview_CA.pdf (last visited Apr. 28, 2007).

57. Legislative Analyst's Office, 2002 Cal Facts Economy (Dec.2002), http://www.lao.ca.gov/2002/cal_facts/econ.html. In 2002, California's market value of production was \$25,737,173,000, with livestock sales accounting for \$6,584,451,000. CAL. AGRIC. STATISTICS SERV., U.S. DEPT OF AGRIC., 2002 CENSUS OF AGRICUL-

The San Joaquin Valley, home to two-thirds of the state's dairies,⁵⁸ may look like "a bucolic farming community, complete with almond groves, cornfields and orange trees" from afar.⁵⁹ However, a closer inspection reveals that this area between the Sierra Nevada and the Coastal Ranges is actually a smog-filled haven for respiratory disease.⁶⁰ Over sixteen percent of the region's children have asthma, which is triple the national rate.⁶¹ The City of Fresno has the third-highest rate of asthma in the country,⁶² and only Houston and Los Angeles can rival the San Joaquin Valley for having the country's worst air quality.⁶³ This elevated level of pollution has caused many of California's air quality districts to be designated "non-attainment zones"⁶⁴ under the CAA. The San Joaquin Valley, for example, was reclassified in 2001 as a severe non-attainment zone.⁶⁵ The source of over half of the San Joaquin Valley's pollution in autumn is industrial agriculture, which contributes 170 tons of emissions per day.⁶⁶

D. Despite AFOs' Impacts on Air Quality, the Government Has Not Responded

Despite the known impacts of industrial animal agriculture on air quality, the federal and state governments have not yet adequately addressed the problem. State and federal laws either expressly exempt agriculture from air pollution laws, or simply neglect to include agriculture as a regulated industry. Furthermore, the failure to regulate agriculture is not just limited to air

TURE STATE PROFILE: CALIFORNIA - RANKED ITEMS WITHIN U.S., available at http://www.nass.usda.gov/Statistics_by_State/Ag_Overview/AgOverview_CA.pdf.

58. Ruhl, *supra* note 50, at 286.

59. Juliet Eilperin, *In California, Agriculture Takes Center Stage in Pollution Debate*, WASH. POST, Sept. 26, 2005, at A1.

60. *Id.*

61. David A. Yengoyan, Comment, *Title V of the Clean Air Act: The Effects of California's Agricultural Exemption on the San Joaquin Valley*, 1 SAN JOAQUIN AGRIC. L. REV. 151, 151 (2003).

62. Eilperin, *supra* note 59, at A1.

63. *Id.*

64. The EPA classifies "air quality control regions" within each state as either "nonattainment," "attainment," or "unclassifiable." Nonattainment areas are areas that do not meet the standard for a particular national air quality standard, while attainment areas are areas that do meet the standards. 42 U.S.C. 42 § 7407(d)(1)(A)(i)-(iii).

65. Yengoyan, *supra* note 61, at 156. Classifications for ozone non-attainment zones include, from best to worst: marginal, moderate, serious, severe, and extreme. 42 U.S.C. § 7511(a)(1).

66. S. 700, 2003 Leg., 2003-04 Reg. Sess. (Cal. 2003).

pollution. State and federal laws also exclude agriculture from other types of laws.

1. Shielding Agriculture from Air Pollution Regulation

a. State Laws – Oregon and California as Examples

Oregon's air pollution laws expressly exempt agriculture from regulation, stating: "[T]he air pollution laws contained in [air pollution control provisions] do not apply to: (a) Agricultural operations and the growing or harvesting of crops and the raising of fowl or animals"⁶⁷ California had a similar provision until the California Legislature repealed it in 2003.⁶⁸ California Health and Safety Code formerly provided, "a permit shall not be required for . . . (e) any equipment used in agricultural operations in the growing of crops or the raising of fowl or animals"⁶⁹

b. Federal laws – the CAA as an Example

Federal laws also expressly exempt agriculture from air pollution regulation. The CAA's section governing the regulation of hazardous pollutants, for example, includes a requirement for the EPA Administrator to promulgate a list of one hundred substances which are "known to cause or may be reasonably anticipated to cause death, injury, or serious adverse affects to human health or the environment" upon accidental release.⁷⁰ However, the Administrator also has the authority to "establish a greater threshold quantity for, or to exempt entirely, any substance that is a nutrient used in agriculture when held by a farmer."⁷¹ Furthermore, under the CAA's section governing state standards of fleet vehicles and engines, the Act prohibits states from enforcing standards or other emissions-controlling requirements for engines used in farm equipment.⁷²

67. OR. REV. STAT. § 468A.020 (2005).

68. CAL. HEALTH & SAFETY CODE § 42310(e) (Deering 2003) (repealed 2003).

69. *Id.*

70. 42 U.S.C. § 7412(r)(3).

71. *Id.* § 7214(r)(5).

72. *Id.* § 7581(5). It should be noted that the CAA arguably contains provisions that do apply to agriculture, otherwise the EPA would have been unable to prevail in the few cases it has brought against AFOs under the CAA. *See* discussion *infra* Part IV. However, the fact remains that the federal government generally declines to use this authority.

2. Shielding Agriculture from Other Types of Regulation

a. Right-to-Farm Laws

In addition to shielding agriculture from air pollution laws, a range of other laws exist that protect agriculture from common law tort claims. Many states, for example, have what are called “Right-to-Farm” laws.⁷³ These laws protect farmers from nuisance and trespass suits, as long as the farm practices are “reasonable and prudent.”⁷⁴ For example, if a new non-farm neighbor moves next door to a pig farm, the farm is shielded from any nuisance action the neighbor may bring regarding the pig smell. In the 1980s, the Right-to-Farm law became a popular tool for protecting farmland from encroaching urbanization.⁷⁵ AFO operators are able to use Right-to-Farm laws to their advantage, characterizing themselves as farms to gain immunity from tort claims.⁷⁶

b. Agriculture & Markets Law

Similarly, some state laws shield farms from local laws that have the potential to hinder farming operations. New York’s Department of Agriculture and Markets, for example, exists to “foster a competitive food and agriculture industry that benefits producers and consumers alike.”⁷⁷ The department has a comprehensive set of laws through which it carries out its marketing goals.⁷⁸ One such law states that “[l]ocal governments, when exercising their powers to enact and administer comprehensive

73. See, e.g., N.Y. AGRIC. & MKTS. LAW § 308 (McKinney 2006). For a good discussion on Right-to-Farm law, see Lisa M. Thomas, Comment, *Forgiving Nuisance and Trespass: Is Oregon’s Right-to-Farm Law Constitutional?*, 16 J. ENVTL. L. & LITIG. 445 (2001).

74. Thomas, *supra* note 73, at 445.

75. *Id.*

76. See, e.g., *Pure Air & Water, Inc. v. Davidsen*, 668 N.Y.S.2d 248 (App. Div. 1998) (allowing New York’s Right-to-Farm law to bar a nuisance action against a farm operation with 1000 pigs); see also *Upchurch v. Cumberland County Fiscal Court*, No. 2000-CA-002607-MR, 2003 Ky. App. LEXIS 22, at *3 (Ct. App. 2003) (Schroder, J., dissenting) (noting the ridiculousness of allowing the Right-to-Farm law to be applied to AFOs: “We can all agree that 23 chickens in a coop would be a traditional agricultural or farm use. Likewise, 23,000 chickens in a barn is more of a chicken factory or AFO. An AFO is not subject to city or county regulations because of the Right to Farm Act.”).

77. N.Y. State Dep’t of Agric. & Mkts., Welcome!, <http://www.agmkt.state.ny.us/TheDepartment.html> (last visited Jan. 20, 2007).

78. See New York State Legislature, <http://public.leginfo.state.ny.us/menuf.cgi> (click on “Laws of New York,” click on “AGM”) (listing New York’s laws pertaining to agriculture and markets) (last visited Jan. 20, 2007).

plans and local laws, ordinances, rules or regulations . . . shall not unreasonably restrict or regulate farm operations within agricultural districts . . . unless it can be shown that the public health or safety is threatened.”⁷⁹ While this provision is a positive way to keep land in agricultural production, it also has the negative effect of prohibiting municipalities from drafting laws to protect people from some dangers AFOs pose.⁸⁰

c. The CWA Stormwater Exemption

Additionally, even though the CWA regulates CAFOs (the bigger AFOs) under its NPDES permit program,⁸¹ the CWA still includes a substantial exemption for animal agriculture. “Agricultural stormwater discharges” from farmlands are not considered discharges for purposes of the CWA.⁸² Considering that it is during storms when much of the runoff from farms occurs (including manure that is sprayed on fields), the stormwater exemption effectively forms a shield from CWA regulation for agriculture.⁸³

E. Why the Government Has Failed to Respond to Factory Farming’s Air Quality Threat

While many of these laws were justified in the era before industrial agriculture, AFOs are now able to take advantage of laws designed to help smaller, less polluting farms. These laws frustrate the protection of the public interest, which is often damaged by factory-style farming practices.⁸⁴ Why has the government failed to respond to the lack of air pollution regulation in the face of this new type of agriculture? As shown above, the government has historically graced agriculture with special treatment, expressly exempting the industry or simply not addressing it at

79. N.Y. AGRIC. & MKTS. LAW § 305-a(1).

80. *See, e.g.*, Order for Town of Butternut, Compelling Compliance with the Provisions of Sections 305(2) and 305-a(1) of the Agriculture and Markets Law (N.Y. Dep’t of Agric. & Mkts. June 18, 1997) (determination and order) (concluding that town’s law prohibiting dairy from landspreading waste unreasonably restricts farming operation).

81. *See* 33 U.S.C. §§ 1342(a), 1362(14).

82. 33 U.S.C. § 1362(14) (2000). The Water Quality Act of 1987 made this amendment. *See* Jerger, *supra* note 33, at 103.

83. For a criticism of the CWA’s agricultural stormwater exemption, which was further amended to be less strict in 2003 see generally Jerger, *supra* note 33, at 102-05.

84. *See* discussion *supra* Part II.C.

all.⁸⁵ Also, the sheer number of farms makes regulation daunting.⁸⁶ Adding to the difficulty is the dispersal of farms across the country, especially in rural areas.⁸⁷ Furthermore, farms lack “point sources” such as smokestacks and pipes, which other industrial sources possess, making monitoring and measuring emissions troublesome.⁸⁸

There are also economic, political, and social considerations. Agriculture is a \$200 billion industry nationally, making it an important part of the United States economy.⁸⁹ Also, agriculture has historically been a strong political force, and has successfully evaded regulation through extensive congressional lobbying.⁹⁰ Moreover, Americans still kindle a romanticized view of agriculture, imagining their food coming from pastoral farms with red barns amid green, rolling pastures.⁹¹ Although this “Jeffersonian ideal”⁹² is an inaccurate view of modern agriculture, powerful agribusinesses sustain this falsehood through marketing campaigns with imagery of small farms and happy cows, when in reality their products are frequently from confinement operations.⁹³

III. BACKGROUND INFORMATION ON THE CLEAN AIR ACT

As Part II discussed, the government has continuously refrained from regulating agriculture. Regarding air pollution, only three times has the EPA brought enforcement actions against AFOs under the CAA.⁹⁴ Before making the argument that the

85. COPELAND, PRIMER, *supra* note 7, at Summary.

86. Ruhl, *supra* note 50, at 329.

87. *Id.*

88. See Farm Foundation, The Future of Animal Agriculture in North America: An Overview of Issues 5 (Nov. 2004), <http://www.farmfoundation.org/projects/documents/InitialWhitePaperNovember04.pdf>.

89. NAT'L AGRIC. STATISTICS SERV., U.S. DEP'T OF AGRIC., 2002 CENSUS OF AGRICULTURE - UNITED STATES DATA 9, tbl.3, available at <http://www.nass.usda.gov/census/census02/volume1/us/USVolume104.pdf>.

90. See, e.g., Ruhl, *supra* note 50, at 332 (“The Farm Bureau has fought steadfastly, and apparently quite successfully, against any and all proposed environmental regulation of farms.”); see also *Industry Seeks to Define Farm Emission Sources to Limit Enforcement*, INSIDE EPA, July 15, 2005, at 9 (describing how an agricultural industry task force proposed new definitions to limit the ability of environmental laws to regulate agriculture).

91. Connard, *supra* note 25, at 134; Brehm, *supra* note 27, at 797-98.

92. Brehm, *supra* note 27, at 798.

93. See *id.*; see also Kimbrell, *supra* note 4, at 3 (“Corporate agriculture has flooded, and continues to inundate, the public with self-serving myths about modern food production.”).

94. See discussion *infra* Part IV.

government should regulate air pollution from AFOs under the CAA, it is important to understand how the CAA actually works. To that end, this section gives the reader a basic understanding of how the CAA works, and explains how the Act has been an effective regulatory tool for other industries.

A. The Overall Framework

The CAA, the United States' primary air pollution law, has existed in some form since the 1950s.⁹⁵ Congress passed the Air Pollution Control Act of 1955,⁹⁶ which was little more than an authorization to allocate money for federal research into air pollution control and provide assistance to the states.⁹⁷ In 1963, Congress passed a new act, which was given its modern name, the "Clean Air Act."⁹⁸ The Air Quality Act of 1967⁹⁹ amended the Clean Air Act to provide for federal regulation of sources of air pollution for the first time.¹⁰⁰ It was not until 1970, however, that the CAA appeared in its modern form.¹⁰¹ Congress, at that point, authorized the EPA (a brand new agency at the time) to implement and enforce the Act.¹⁰²

One of the main purposes of the CAA is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of the population."¹⁰³ The EPA has been relatively successful in carrying out this purpose. To illustrate, even though the nation's energy consumption has increased 47% percent in the past thirty years, the U.S. Gross Domestic Product (an indicator of consumption) has increased 187% and the number of vehicle miles traveled has increased 171%, air pollution has been reduced by half since

95. ROY S. BELDEN, CLEAN AIR ACT 5 (2001).

96. Air Pollution Control Act of 1955, Pub. L. No. 84-159, 69 Stat. 322 (current version at 42 U.S.C. §§ 7401-7671q).

97. BELDEN, *supra* note 95, at 5.

98. Clean Air Act, Pub. L. No. 88-206, 77 Stat. 392 (1963) (current version at 42 U.S.C. §§ 7401-7671q).

99. Air Quality Act of 1967, Pub. L. No. 90-148, 81 Stat. 485 (current version at 42 U.S.C. §§ 7401-7671q).

100. BELDEN, *supra* note 95, at 5.

101. *Id.* at 6.

102. *Id.*

103. 42 U.S.C. § 7401(b)(1).

1970.¹⁰⁴ This drop in air pollution has occurred mainly through the CAA's regulation of sources like power plants and factories.¹⁰⁵

The CAA is "one of the most complicated and prescriptive environmental statutes on the books,"¹⁰⁶ perhaps in part due to its federal-state partnership. The Act contains a dual regulatory regime in which the federal government sets national air quality standards called National Ambient Air Quality Standards,¹⁰⁷ or "NAAQS," and the states create plans called State Implementation Plans,¹⁰⁸ or "SIPs," in order to ensure that the standards are met. Included in SIPs are requirements for sources to obtain permits in order to emit pollution.¹⁰⁹

B. National Air Quality Standards as the Goal

National Ambient Air Quality Standards (NAAQS) are the EPA standards intended to reflect an acceptable level of pollution—in other words, one that ensures that people will be healthy and the environment will not be degraded. NAAQS are divided into two categories: primary and secondary.¹¹⁰ Primary standards are "requisite to protect the public health;"¹¹¹ secondary standards are designed to "protect the public welfare . . . from adverse affects . . . of . . . air pollutant[s]".¹¹² The EPA is required to list pollutants that "may reasonably be anticipated to endanger public health or welfare."¹¹³ These are called "criteria pollutants," and the EPA has so far identified six: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM), and

104. *Clear Skies Act: Hearing Before the Subcomm. on Energy & Air Quality of the H. Comm. on Energy & Commerce*, 109th Cong. (2005) (statement of Jeffrey Holmstead, Assistant Administrator, U.S. Environmental Protection Agency).

105. See EPA, *The Plain English Guide to the Clean Air Act: Features of the 1990 Clean Air Act*, http://www.epa.gov/air/oaqps/peg_caa/pegcaa02.html#topic2a (last visited Jan. 20, 2007) (discussing its "breakthrough" permit program).

106. BELDEN, *supra* note 95, at 5.

107. 42 U.S.C. § 7409.

108. *Id.* § 7410.

109. See *id.* § 7410(a)(2)(A), (C) (requiring enforceable emissions limitations and a program for enforcement including source permits). It should be noted that not all CAA programs are a joint effort between the federal government and the states. The Act's provisions regulating hazardous air pollutants, 42 U.S.C. § 7412, and acid deposition, 42 U.S.C. § 7651-76510, for example, are solely the province of the federal government.

110. *Id.* § 7409(a).

111. *Id.* § 7409(b)(1).

112. *Id.* § 7409(b)(2).

113. *Id.* § 7408(a)(1)(A).

sulfur dioxide (SO₂).¹¹⁴ The EPA measures whether different regions of the country, called “Air Quality Control Regions,” or “AQCRs,” meet NAAQS for each criteria pollutant.¹¹⁵ AQCRs that meet NAAQS are called “attainment zones,”¹¹⁶ while AQCRs that are not are called “non-attainment zones.”¹¹⁷

C. State Implementation Plans

As noted above, the EPA requires each state to develop a SIP that includes “source-specific emission limitations and other regulatory restrictions and control strategies for criteria pollutant emissions.”¹¹⁸ The SIP is hardly a federally standardized plan, however. It functions through a collection of various state statutes, rules, local ordinances, and other measures to control air pollution.¹¹⁹ Although states have great flexibility in creating SIPs, the plans must still contain a number of specific elements as outlined in the CAA,¹²⁰ and must obtain EPA approval.¹²¹ Also, the EPA may require revisions to inadequate SIPs,¹²² a process called a “SIP call.” States that fail to revise inadequate SIPs may be faced with sanctions such as the loss of highway funding¹²³—something no state can afford to lose—or the requirement to offset emissions.¹²⁴

D. Permits – The CAA’s Main Regulatory Mechanism

The CAA’s primary mechanism for ensuring compliance with the CAA is the permit.¹²⁵ The CAA has two principal permitting programs: New Source Review (NSR)¹²⁶ and Title V Operating

114. See National Primary and Secondary Ambient Air Quality Standards, 40 C.F.R. §§ 50.4-50.12 (2006).

115. 42 U.S.C. § 7407.

116. *Id.* § 7407(d)(1)(A)(ii).

117. *Id.* § 7407(d)(1)(A)(i).

118. BELDEN, *supra* note 95, at 23.

119. *Id.*

120. 42 U.S.C. § 7410(a)(2).

121. *Id.* § 7410(k)(3).

122. *Id.* § 7410(k)(5).

123. *Id.* § 7509(a), (b)(1)(A).

124. *Id.* § 7509(a), (b)(2). The Offset sanction requires a state to maintain a ration of 2:1 for emissions reductions to increased emissions. *Id.* § 7509(b)(2). This can be powerful tool as well since it could limit industrial growth in the sanctioned state.

125. Once sources have permits, the EPA can enforce permit conditions through instruments such as notices of violation (NOVs), administrative orders, and district court complaints, all authorized by CAA § 113, 42 U.S.C. § 7413.

126. NSR requirements, which can be found at Part C and Part D of the CAA, 42 U.S.C. §§ 7470-7515, differ based on whether the source is in an attainment or non-

Permits (Title V).¹²⁷ The NSR program requires new sources and existing sources undergoing major modifications to submit to a review process before construction.¹²⁸ Where sources are located in non-attainment areas, NSR requires sources to implement “the most protective pollution controls” and obtain “emission offsets.”¹²⁹ The Title V program requires existing sources to obtain operating permits, which contain emission limits, standards, and controls, plus monitoring, recordkeeping, and reporting requirements.¹³⁰

E. “Major Sources” of Pollution

The permit programs described above apply to “major sources.”¹³¹ The CAA defines major sources differently, depending on the type of permit applicable to the source, what type of pollution the source emits, and in which type of zone the source is located. For example, a source will be subject to NSR if it belongs to one of the twenty-seven source categories listed in the CAA and annually emits, or has the “potential to emit,” one-hundred tons or more of any pollutant subject to regulation under the CAA.¹³² Sources not listed therein are subject to NSR if they emit or have the potential to emit more than 250 tons of pollutants annually.¹³³ A source will be subject to Title V if it either emits (or has the potential to emit) a hundred tons per year of any pollutant regulated under the CAA, or in the case of hazardous pollutants, ten tons per year of a single pollutant, or twenty-five tons per year of a combination of pollutants.¹³⁴

IV. AFOS ARE MAJOR SOURCES OF INDUSTRIAL AIR POLLUTION

Although agricultural industry representatives oppose classifying farms with industrial polluters,¹³⁵ factory-style farms are

attainment area. For a better understanding of the NSR program, see EPA, New Source Review (NSR), <http://www.epa.gov/nsr/> (last visited Jan. 20, 2007).

127. 42 U.S.C. §§ 7661-7661f. For a better understanding of the Title V program, see EPA, Air Permits: Basic Facts, <http://www.epa.gov/air/oaqps/permits/> (last visited Jan. 23, 2007).

128. BELDEN, *supra* note 95, at 43.

129. *Id.*

130. *Id.* at 97.

131. See 42 U.S.C. § 7661 (defining terms as used in Title V).

132. *Id.* § 7479(1).

133. *Id.*

134. See *id.* §§ 7661(2), 7412, 7602(j).

135. See *supra* note 90 and accompanying text.

major sources of industrial air pollution and should be regulated under the CAA. First, ample proof exists that AFOs emit levels of pollution on par with many industries. Second, other environmental laws treat AFOs like industrial sources. Third, lawmakers in western states, where factory-style farming is causing serious air pollution problems, have recently required that AFOs be regulated like other industrial sources are under the CAA.

A. AFOs Emit Levels of Air Pollution on Par with Polluting Industries

As discussed, AFOs produce a variety of toxic emissions¹³⁶ and numerous reports document these dangers.¹³⁷ AFO emissions are often comparable with those that traditional manufacturing plants produce. One dramatic example is Threemile Canyon Farms, LLC (Threemile) in eastern Oregon.¹³⁸ The dairy's 52,300 cows produce up to 15,500 pounds of ammonia daily,¹³⁹ or 5,675,500 pounds annually. At this rate, Threemile's ammonia emissions are 75,000 pounds greater than the nation's top manufacturing source of ammonia air pollution in the United States.¹⁴⁰

B. Other Environmental Laws Treat Factory-Style Farms like Industry

1. The CWA Treats CAFOs like Industrial Sources

Not only does the science demonstrate the dangers from AFO emissions, but legislators creating environmental laws and judges interpreting them also recognize these dangers. As discussed, the CWA stands alone as the one federal environmental statute that expressly regulates factory-style farming.¹⁴¹ The CWA's express purpose is "to restore and maintain the chemical, physical, and

136. See discussion *supra* Part II.C.

137. See sources cited *supra* note 7.

138. See generally Threemile Canyon Farms, LLC, Fact Sheet, http://www.threemilecanyonfarms.com/our_news/fact_sheet.html (last visited Apr. 28, 2007) [hereinafter Threemile Website] (describing Threemile's operations).

139. Letter and enclosed report from Tom Lindley, Perkins Coie, to EPA Region 10 (Apr. 18, 2005) (on file with author) [hereinafter Threemile Report].

140. See EPA, TRI Explorer: Facility Report, <http://www.epa.gov/triexplorer/facility.htm> (last visited Feb. 13, 2007) [hereinafter *TRI Explorer*] (under "Chemical Released" selection box, select "Select Specific Chemical(s)"; in new window, choose "Ammonia" and click "Done"; then click "Generate Report" button on original web page). The top reported ammonia emitter in the United States in 2004 was CFC Industries, Inc. in Donaldsonville, LA. See *id.*

141. See *supra* notes 17-18 and accompanying text.

biological integrity of the Nation's waters."¹⁴² Much like the CAA, the CWA's regulatory framework includes a process for setting standards and mechanisms to meet these standards. As the CAA requires major sources to obtain permits to emit pollutants into the air, the CWA requires point sources to obtain permits to discharge pollution into the water.¹⁴³ The CWA regulates approximately 85,000 industrial point sources.¹⁴⁴

The CWA focuses on the regulation of industrial sources of pollution. Interestingly, the CWA also regulates CAFOs. In fact, the CWA goes so far as to use CAFOs in the very definition of a point source: "The term 'point source' means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, *concentrated animal feeding operation*, or vessel or other floating craft, from which pollutants are or may be discharged."¹⁴⁵ Clearly, the CWA treats CAFOs as industrial point sources of pollution. This is a point that cannot be emphasized enough in arguing that AFOs are not farms, but industrial sources of pollution.

2. Courts Have Held That Factory Farms Are Subject to Superfund Law

Another statute that traditionally regulates industries has been held to apply to AFOs. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),¹⁴⁶ commonly referred to as "Superfund," is a remedial statute designed to hold industrial polluters accountable for the cost of cleaning up their polluted sites.¹⁴⁷ CERCLA regulates sites including refineries, landfills, chemical producers, air force bases, and sanitation companies, among others.¹⁴⁸ Industrial sources that emit hazardous substances listed under CERCLA are required to pay into a trust fund (hence, the moniker "Superfund"), which is then used to

142. 33 U.S.C. § 1251(a) (2000).

143. *See id.* §§ 1311(a), 1342(a)(1).

144. EPA, Civil Enforcement: CWA National Enforcement Programs, <http://www.epa.gov/compliance/civil/cwa/cwaenfprog.html> (last visited Jan. 20, 2007).

145. Federal Water Pollution Control Act § 502(14), 33 U.S.C. § 1362(14) (emphasis added).

146. Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (2000).

147. *See* EPA, Superfund: CERCLA Overview, <http://www.epa.gov/superfund/action/law/cercla.htm> (last visited Jan. 13, 2007) [hereinafter CERCLA Overview].

148. *See* EPA, National Priority List: National Priority List Sites in New York, <http://www.epa.gov/superfund/sites/npl/ny.htm> (last visited Jan. 13, 2007).

remediate polluted sites.¹⁴⁹ Facilities that emit over certain quantities of listed substances are also required to report their emissions to the National Response Center.¹⁵⁰

CERCLA does not expressly regulate AFOs. However, a trend has emerged in which courts are holding that factory-style farms do in fact emit hazardous substances and are therefore required to report emissions and contribute to Superfund. In *Sierra Club v. Seaboard Farms*,¹⁵¹ for example, the Tenth Circuit examined whether Dorman Farms, a CAFO owned by Seaboard and housing 25,000 swine, was responsible for reporting ammonia emissions from the operation's waste management system (waste lagoons, barn exhaust system, and land application areas).¹⁵² While in the lower court the Sierra Club lost the argument that the operation was required to report its ammonia emissions, the Sierra Club's argument prevailed in the Tenth Circuit, which reversed the lower court's decision and remanded the case for further proceedings.¹⁵³

Similarly, in *City of Tulsa v. Tyson Foods*,¹⁵⁴ the City of Tulsa and Tulsa Metropolitan Utility Authority filed suit against several poultry companies, including Tyson, Inc., Cargill, Inc., and Peterson Farms, Inc., whose contract growers in the Eucha/Spavinaw Watershed had caused eutrophication¹⁵⁵ of Tulsa area lakes.¹⁵⁶ At issue was whether phosphorus emissions from the growers' poultry litter were a hazardous substance under CERCLA.¹⁵⁷ The district court ultimately held that they did trigger CERCLA liability.¹⁵⁸

In another case involving phosphorus emissions, *Waco v. Schouten*,¹⁵⁹ the city of Waco, Texas brought a lawsuit against eight dairies to compel the dairies to contribute to the costs of

149. CERCLA Overview, *supra* note 146.

150. 42 U.S.C. § 9603(a).

151. *Sierra Club v. Seaboard Farms, Inc.*, 387 F.3d 1167 (10th Cir. 2004).

152. *Id.* at 1168-69.

153. *Id.*

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

155. "Eutrophication is a condition in an aquatic ecosystem where high nutrient concentrations stimulate blooms of algae" EPA, Mid-Atlantic Integrated Assessment: Eutrophication, <http://www.epa.gov/maia/html/eutroph.html> (last visited Jan. 20, 2007).

156. *Tyson Foods, Inc.*, 258 F. Supp. 2d at 1270.

157. *Id.* at 1283.

158. *Id.* at 1285.

159. *City of Waco v. Schouten*, 385 F. Supp. 2d 595 (W.D. Tex. 2005).

treating water contaminated with phosphorus.¹⁶⁰ The defendant dairies and their operators brought a motion to dismiss, arguing that cow manure and other materials that contain phosphorus are not hazardous substances under CERCLA.¹⁶¹ The court denied the dairies' motion to dismiss, concluding that phosphorus contained in cow manure is a hazardous substance under CERCLA.¹⁶²

The fact that federal courts agree that AFOs are liable under Superfund law is another strong indicator that factory-style farms are industrial sources of pollution, no less polluting than many Superfund contributors.

C. Lawmakers in Western States Have Realized the Air Pollution Threats of Factory Farms, and Are Now Treating Them as Industrial Sources

1. The California Legislature Removed the Exemption from Air Pollution Laws for Agriculture

Yet another strong indicator that factory-style farms are industrial sources of pollution can be found in California. Although most people think of the Midwest as farm country, California has the United States' largest farm economy.¹⁶³ California also has the country's worst air pollution.¹⁶⁴ While much of the pollution stems from vehicle emissions, animal agriculture is gaining as a top pollution source.¹⁶⁵ California has taken significant steps to curb auto emissions, including creating the toughest vehicle emissions regulations in the world.¹⁶⁶ Until recently, however, the state had neglected to address agricultural emissions.

a. California's Agricultural Exemption in its Air Pollution Laws

In 2003, the California legislature finally gave agricultural emissions a hard look and overturned its long-standing policy of

160. *Id.* at 598.

161. *Id.* at 601.

162. *Id.*

163. *See supra* text accompanying note 57.

164. *See discussion supra* Part II.C.2.

165. *See* Eilperin, *supra* note 59, at A1 ("By spewing smog-forming gases into the air, the legislature declared, cows had joined cars and trucks as major polluters.").

166. *California Approves World's Toughest Vehicle Emissions Rules*, USA TODAY, Sept. 25, 2004, at Nation, available at http://www.usatoday.com/news/nation/2004-09-25-calif-rule_x.htm.

exempting agriculture from air pollution laws.¹⁶⁷ As discussed in Part II, California's Health and Safety Code included an exemption from air pollution laws for agriculture. When the law was codified in the 1970s, few factory-style farms operated in California, and an agricultural exemption may well have been justified.¹⁶⁸ In the twenty-first century, however, it is not. California's air quality is so poor that the EPA has designated some of the state's air quality districts as extreme non-attainment zones.¹⁶⁹

b. Environmentalists and Citizens Petitioned the EPA to Remove the Exemption

California's thirty-four pollution control districts run Title V operating permit programs,¹⁷⁰ which require major sources to obtain Title V permits.¹⁷¹ In 1996 the EPA determined that the San Joaquin Valley Unified Air Pollution Control District (the San Joaquin District) operating permit program "substantially, but not fully" met CAA requirements, and the EPA gave it only interim approval.¹⁷² San Joaquin District responded by revising some of its programs, and in 2001, the EPA proposed full approval of its operating program.¹⁷³

A coalition of citizen and environmental groups expressed concerns with the Title V program, requesting that the EPA continue to withhold full approval because the program illegally exempted major sources.¹⁷⁴ The groups argued that AFOs,

167. *See supra* text accompanying note 68.

168. In 1972, for example, more than half of California's dairy farms had fewer than 200 cows. *See* William Salas, Applied Geosolutions, LLC, et al., Biogeochemical Process-Based Modeling of Nutrients and Greenhouse Gas Emissions from California Dairies, Presentation at the Dairy Emissions Research Symposium (Oct. 11, 2006). To be classified a CAFO, a dairy operation must raise 200 or more cows. *See supra* note 10 and accompanying text.

169. *See* text accompanying note 65; *see also* Welcome to California, Governor Launches California Partnership for San Joaquin Valley (June 24, 2005), http://www.governor.ca.gov/state/govsite/gov_htmldisplay.jsp?sFilePath=/govsit/spotlight/062405_update.html&sCatTitle&.

170. Proposed Partial Withdrawal of Approval of 34 Clean Air Act Title V Operating Permits Programs and Implementation of a Partial Part 71 Federal Operating Permits Program in California, 67 Fed. Reg. 48426, 48426-27 (proposed July 24, 2002) [hereinafter Proposed Partial Withdrawal].

171. Clean Air Act Full Approval of Operating Permit Program; San Joaquin Valley Unified Air Pollution Control District, California, 66 Fed. Reg. 53151, 53151 (proposed Oct. 19, 2001) [hereinafter CAA Full Approval].

172. *Id.*

173. *Id.*

174. *See* Letter from Brent J. Newell, Staff Attorney, Ctr. on Race, Poverty & the Env't, to Gerardo Rios, EPA Region IX, (Nov. 16, 2001) (on file with author) [hereinaf-

particularly dairies, are major sources, and that the San Joaquin District must therefore require existing operations to obtain Title V permits to operate.¹⁷⁵ Of course the District, like all other pollution control districts in the state, was not authorized to require AFOs to obtain Title V permits due to the Section 43210 prohibition.¹⁷⁶ The coalition urged the EPA to require California to remove the exemption from the California Code before approving the state's Title V programs.¹⁷⁷ The EPA responded by saying that the exemption applied only to "limited" agricultural types and that it was "appropriate to defer permitting for this limited category of agricultural sources because the currently available techniques for determining emissions inventories and for monitoring emissions . . . are problematic."¹⁷⁸ The agency proposed full approval for not only the San Joaquin program,¹⁷⁹ but all thirty-four programs in California.¹⁸⁰

c. Environmental Groups and Citizens Take Their Battle to the Courts

After the EPA fully approved the emissions control program, environmentalists and citizens groups (petitioners) took their battle to the courts to contest the potentially illegal rule. In May 2002, the petitioners sought judicial review of the EPA's full approval of the San Joaquin program, arguing that the EPA had shirked its non-discretionary duty to prohibit state programs that fail to comply with the CAA.¹⁸¹ The petitioners argued that the EPA is required to issue a SIP call for not just the San Joaquin program, but for all of California pollution control district programs.¹⁸²

ter Newell Letter] (commenting on the approval of the Title V Program for the San Joaquin Valley).

175. *Id.* at 3-4.

176. *See supra* notes 68-69 and accompanying text.

177. *See* Newell letter, *supra* note 174, at 8.

178. CAA Full Approval, *supra* note 171, at 53152.

179. *Id.*

180. Clean Air Act Full Approval of 34 Operating Permits Programs in California, 66 Fed. Reg. 63503 (Dec. 7, 2001) (to be codified at 40 C.F.R. pt. 70).

181. Settlement Agreement at 2-3, *Ass'n of Irrigated Residents v. EPA*, No. 02-70160 (9th Cir. 2002).

182. *See id.*

d. EPA Responded to Threat of Suit; California Responded to Threat of Losing Highway Funding

The EPA had stated, in its proposal to fully approve the District's program, that it was appropriate to defer regulation of the "limited" types of agriculture that fall within the exemption.¹⁸³ Upon receipt of the petition, however, the EPA fully changed course, responding that California's programs are deficient, and issuing a Notice of Deficiency, or "NOD," to all thirty-four of California's air quality districts.¹⁸⁴ The NOD stated that the agricultural exemption "unduly restricts the local districts' ability to adequately administer and enforce their title V programs," and gave California ninety days to revise their programs.¹⁸⁵ A year later, the EPA issued a SIP Call stating that California's SIP was "substantially inadequate."¹⁸⁶ The SIP Call required California "to amend its State law to eliminate the permitting exemption as it pertains to major agricultural sources of air pollution" or risk the loss of highway funding and prescribed offset sanctions.¹⁸⁷ Faced with the possibility of losing invaluable federal funding, the California Senate quickly drafted and passed a bill to remove the agricultural exemption, and by November 2003, the California Health and Safety Code subsection 43210(e) had been repealed.¹⁸⁸

The California example illustrated the great discontent citizens felt in suffering from asthma and smog but lacking the tools to stop those pollution problems. It also illustrated a remarkable response to the threat of AFO emissions. Californians realized that although the state had the world's strictest air emissions standards for vehicles, its air quality problems would never be fully addressed if the state allowed factory-style farms to operate unfettered. Ultimately, the state imposed potentially costly emissions requirements on AFOs despite California's need to sustain its important farm economy.

183. See *supra* text accompanying note 178.

184. Notice of Deficiency for 34 Clean Air Act Operating Permits Programs in California, 67 Fed. Reg. 35990, 35990 (May 22, 2002).

185. *Id.* at 35990-91.

186. Finding of Substantial Inadequacy of Implementation Plan; Call for California State Implementation Plan Revision, 68 Fed. Reg. 37746, 37746 (June 25, 2003).

187. *Id.* at 37747-48.

188. See *supra* text accompanying note 68.

2. The Oregon Legislature is in the Process of Removing a Similar Agricultural Exemption

a. Industrial Animal Agriculture is on the Rise in Oregon

Although the state of Oregon has a fraction of the farming economy of its southerly neighbor,¹⁸⁹ Oregon is not immune to pollution from factory-style farming. California claims the country's largest farming economy, but Oregon claims one of the country's largest dairies—Threemile Canyon Farms, LLC (Threemile).¹⁹⁰ In total, Threemile Canyon currently has 52,300 cows, but is permitted to expand to 90,667 cows.¹⁹¹

Before Threemile began operating, industrial animal agriculture represented but a small sector of Oregon's agricultural make-up. While some AFOs existed, family farming dominated the state and has been increasing, unlike in most other states.¹⁹² In the last few years, however, factory-style farming in Oregon has also been on the rise. Oregon has witnessed a dramatic increase in industrial farming operations since 1994, including the addition of at least five poultry operations with between 300,000 and 600,000 animals, large-scale dairies, and feedlots.¹⁹³

b. Air Pollution is Also on the Rise in Oregon

Air pollution is also on the rise in Oregon. In 2005, the U.S. Forest Service discovered acid rain in one of the state's most re-

189. Oregon's 40,000 farms reached a production value of \$4.1 billion in 2004. See Katy Coba, Director, Or. Dep't of Agric., Remarks to the Oregon Banker's Association (Oct. 20, 2005), available at http://www.oregon.gov/ODA/news/do_speech_051020.shtml. This is approximately sixteen percent of California's \$25 billion farm economy.

190. Threemile Canyon Farms, LLC, Our Story: Growing the Northwest's Leading Sustainable Farm, <http://www.threemilecanyonfarms.com/> (last visited Feb. 24, 2007). Threemile itself claims to be one of the country's largest dairies, although some sources claim that Threemile is the largest dairy in the country, or even the largest in the world. These other sources should be cited or delete sentence as unnecessary. Note also that Threemile's website advertises the dairy as a sustainable farm. *Id.* While the operation has engaged in a number of sustainable farming practices, the fact that Threemile emits pollution levels as indicated in this article strongly undercuts its claim to sustainability. See *infra* notes 198-201 and accompanying text.

191. Threemile Report, *supra* note 139.

192. Kendra Kimbirauskas, *A Green Illusion at Threemile Canyon*, OR. CONIFER, Summer 2005, at 6. An impressive ninety-eight percent of Oregon farms are family-owned. Or. Dep't of Agric., *Oregon Agriculture: Industry Overview*, AGRIC. Q., Winter 2004/2005, at 2.

193. Letter from Mark Riskedahl, Executive Dir., Nw. Env'tl. Def. Ctr., to Michael Bogert, Reg'l Adm'r, EPA Region 10 (Sept. 2005) (on file with author) [hereinafter Petition to Revoke Oregon's SIP].

nowned natural places—the Columbia Gorge.¹⁹⁴ Protected by the Columbia Gorge National Scenic Area Act,¹⁹⁵ the eighty-five mile stretch of land carved out by the Columbia River possesses 800 species of wildflowers, sixteen of which exist nowhere else, and the highest concentration of waterfalls in North America.¹⁹⁶ The Gorge is also a historic site, explored by Lewis and Clark and crossed by thousands of pioneers traveling the Oregon Trail.¹⁹⁷

Scientists have identified two likely sources of pollution contributing to the acid rain: Portland General Electric's coal-burning power plant and Threemile Canyon Farms, LLC (Threemile), both located in eastern Oregon.¹⁹⁸ Threemile is estimated to generate up to 2,829 tons of ammonia per year.¹⁹⁹ Using the emissions factor adopted by the San Joaquin Valley Air Pollution Control District, Threemile also releases 505 tons of VOCs per year.²⁰⁰ Using these figures, Threemile's emissions would also exceed the major source threshold by five times the amount for VOCs and twenty-nine times the amount for ammonia. Threemile's ammonia levels also exceed the combined total of reported ammonia air emissions from all of Oregon's industries.²⁰¹

c. Citizens and Environmentalists Demanded That the Exemption Be Removed

Despite the pollution plaguing the Gorge, the state's Department of Environmental Quality (DEQ) lacks the tools to address

194. Michael Milstein, *Tracking Acid in Gorge*, OREGONIAN, July 29, 2005, at A1. For information on the Gorge, see Friends of the Columbia Gorge, Our Mission and Vision Statements, <http://www.gorgefriends.org/about> (last visited Jan. 13, 2007).

195. 16 U.S.C. § 544-544p (2000).

196. Friends of the Columbia Gorge, Columbia Gorge Overview, <http://www.gorgefriends.org/gorge> (last visited Jan. 13, 2007).

197. *Id.*

198. Milstein, *supra* note 194, at A1.

199. See *supra* text accompanying note 139. Ammonia emissions of 5,657,500 pounds per year is equivalent to 2,829 tons per year.

200. Petition to Revoke Oregon's SIP, *supra* note 193. The emission factor is 19.3 pounds of VOCs per cow per year. *Id.*

201. See TRI Explorer, *supra* note 140 (under "Geographic Region," select "Oregon"; under "Chemical Released," select "Select Specific Chemical(s)"; in new window, choose "Ammonia" and click "Done"; then click "Generate Report" on original web page) (Oregon's industries required to report emissions under CERCLA and EPCRA create a combined total of 1,292,444 pounds of ammonia. Threemile reported 5,675,000 pounds of annual ammonia emissions). See also discussion *supra* Part IV.A. Note that the TRI figures include "point source" air emissions, also known as "non-fugitive" emissions. The CAA does not generally regulate "fugitive" emissions. See 42 U.S.C. § 7602(j).

the problems. Like California until 2003,²⁰² Oregon possesses an express exemption from the state's air pollution laws for agriculture. The head of the DEQ's air quality division admitted that due to the exemption, "[DEQ personnel] don't have the tools we normally have to address the [pollution] situation."²⁰³ As in California, citizens in Oregon demanded that the law be changed to effectively deal with modern agriculture. In 2005, Northwest Environmental Defense Center (NEDC), Friends of the Columbia Gorge, Pacific Legal Advocacy Center (PEAC), and other citizen's groups petitioned the EPA Region Ten to remove the agricultural exemption.²⁰⁴ The citizens' groups argued that Oregon now possesses major sources of air pollution and that these sources must obtain NSR or Title V permits from the DEQ in order to operate.²⁰⁵ The EPA directed the state to remove the exemption,²⁰⁶ and since then, the Oregon Department of Agriculture (ODA), the DEQ, representatives of the agricultural industry, and the citizens' groups have been working to draft a new bill to eliminate the agricultural exemption.²⁰⁷ Oregon, like California, is demanding that factory-style farms be treated like industrial sources under the CAA.

V. THE EPA'S AIR COMPLIANCE AGREEMENT – AN ADEQUATE RESPONSE?

Scientific studies show the health threats from CAFO air emissions. Judges have responded by requiring factory-style farms to contribute to Superfund for the hazardous pollutants they emit. Lawmakers in western states have responded by re-

202. See *supra* note 68 and accompanying text.

203. Milstein, *supra* note 192, at A1.

204. See Petition to Revoke Oregon's SIP, *supra* note 193.

205. *Id.*

206. EPA Region 10 responded to Oregon petitioners' request in a more informal way than EPA Headquarters did when petitioners in California requested the removal of its exemption. EPA Region 10 did not issue Oregon a SIP call, but instead communicated directly with the citizens' groups and the DEQ. Telephone Interview with Melissa Powers, Clinical Professor, Pac. Env'tl. Advocacy Ctr. (PEAC) at Lewis & Clark Law School, in Portland, Or. (Jan. 26, 2007).

207. The ODA did not invite the citizens' groups to help construct the new bill. Representatives from Oregon's agricultural industry, the ODA, and the DEQ drafted a "legislative concept," which would remove the exemption, in the summer of 2006. The legislative concept has been assigned a senate bill number, and is now "S.B. 235." The state agencies invited the citizens' groups to comment on what is now S.B. 235, and the citizens' groups created a stronger, alternative legislative concept. See *Nw. Env'tl. Def. Ctr. et al., Agriculture and Air Quality Legislation Problems and Solutions* (on file with author).

quiring regulation of CAFOs under the CAA. What is the EPA doing to respond? At the turn of the twenty-first century, it appeared that the EPA was beginning to take action. In 2001, in its first ever suit against an AFO for CAA violations, the EPA reached a \$350,000 settlement agreement with Premium Standard Farms and Continental Grain Company, together the nation's second largest producer of hogs.²⁰⁸ In 2004, the EPA settled a case against Buckeye Egg Farm, L.P., in which the corporation was required to pay \$880,598 in civil penalties and over \$1.6 million to implement emissions-reducing technology.²⁰⁹ The EPA entered into a similar consent decree in 2006 with Seaboard Farms LP, one of the largest vertically-integrated pork producers in the United States.²¹⁰

With the exception of these few cases, the EPA has declined to bring additional CAA suits against AFOs.²¹¹ What EPA has done instead is announce a different initiative to address air emissions from factory-style farms—the Air Compliance Agreement (Agreement).²¹² Billed as an “extensive, nationwide emissions monitoring study” of AFO emissions,²¹³ the Agreement’s goal is “to address emissions of air pollutants and hazardous substances from certain animal feeding operations(s) that may be subject to

208. See Press Release, Dep’t of Justice, Nation’s Second Largest Hog Producer Reaches Settlement with U.S. & Citizen’s Group (Nov. 20, 2001), available at <http://www.epa.gov/compliance/resources/cases/civil/mm/psf.html> (click on “Press Release”). In addition to the civil penalty, the defendants were ordered to spend an additional \$50 million to install emission-reducing equipment. *Id.*

209. The Department of Justice brought this action on behalf of EPA Region 5. See EPA, Region 5 - Regional Counsel: Enforcement Action Summary Fiscal Year 2004: Clean Air Act (CAA), <http://epa.gov/region5/orc/enfactions/enfactions2004/law-caa.htm> (last visited Jan. 25, 2007).

210. See Press Release, EPA, Government Reaches Settlements with Seaboard Foods and PIC USA (Sept. 15, 2006), available at <http://www.epa.gov/compliance/resources/cases/civil/mm/seaboard.html> (click on “Press Release”).

211. While the above cases were originally initiated under the Clinton Administration, under the Bush Administration, no new CAA cases have been brought against confinement operations. EPA Administrator, Christine Whitman, discouraged enforcement of polluting industries. See Elizabeth Shogren, *A Natural Split with Bush, and Many Quit: Longtime, Key Officials Who Favor Conservation Say They Are Frustrated by New Rules*, L.A. TIMES, June 3, 2002, at 1 (describing how an EPA attorney quit after finding that Bush administration policies “affected her ability to vigorously pursue cases in her specialty, concentrated animal feeding lots” and “the agriculture industry’s sway over the administration was making it increasingly difficult to crack down on corporate farms”).

212. Air Compliance Agreement, *supra* note 20, at 4958.

213. *Id.*

requirements of the Clean Air Act [and CERCLA and EPCRA]”.²¹⁴ The Agreement sets forth an air emissions program in which emissions from livestock confinement buildings and waste lagoons will be monitored for a two-year period scheduled to begin in 2006.²¹⁵ The EPA will use the monitoring data to establish methodologies for estimating emissions from AFOs.²¹⁶

While this sounds like a positive step forward—EPA finally recognizes what citizens, state legislators, and scientists already know—a closer look reveals that it may not be. The specific details of the Agreement illustrate that the EPA remains content to perpetuate the myth that AFOs are farms, not industrial sources. This section illustrates why the Agreement is not an adequate response to the pollution problems from factory-style farms.

A. The Agreement Unreasonably Delays Pollution Reductions

Primarily, the Agreement is not an adequate response to air emissions because it requires absolutely no reduction in AFO emissions; the Agreement is merely another study. After the conclusion of the two-year monitoring program, the EPA has eighteen months to analyze the data.²¹⁷ At that point, the EPA will publish “emission estimating methodologies” for AFOs, and AFOs participating in the program must certify that they are in compliance with all CAA requirements.²¹⁸ After the methodologies are published, AFOs have 120 days to implement the methodologies and

214. *Id.* at 4962. EPCRA is the Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. §§ 11001-11050 (2000). Similar to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §§ 9601-9675 (2000), it requires polluters to report hazardous emissions above certain levels. 42 U.S.C. § 11004.

215. EPA, Civil Enforcement: Animal Feeding Operations Air Quality Compliance Agreement Fact Sheet, <http://www.epa.gov/compliance/resources/agreements/caa/cafo-fcsht-0501.html#nationwide> (last visited Jan. 14, 2007). Although the monitoring was scheduled to begin in 2006, as of January 2007, it had not yet begun. Telephone Interview with Brent Newell, Ctr. for Race, Poverty and the Env't in S.F., Cal. (Jan. 23, 2007).

216. EPA, *supra* note 215.

217. Press Release, EPA, EPA Takes Important Step in Controlling Air Pollution from Farm Country Animal Feeding Operations (Aug. 22, 2006), *available at* <http://www.epa.gov/newsroom/newsreleases.htm> (click on “Agriculture”, then “EPA Takes Important Step in Controlling Air Pollution from Farm Country Animal Feeding Operations”) [hereinafter EPA Press Release].

218. Air Compliance Agreement, *supra* note 20, at 4958.

apply for applicable CAA permits.²¹⁹ Assuming that this timeline is correct, the earliest date in which participating AFOs will be required to actually control emissions is October 2010. However, it could be much longer than that, as the Agreement also gives AFOs an option to extend its deadline to comply “by mutual agreement of EPA and participants, without limit to how long such an extension might last.”²²⁰

When people are suffering from serious respiratory and other ailments from AFO emissions, the EPA is taking what appears to be an unreasonable risk in delaying regulation. The EPA claims that the monitoring study is necessary because the currently available science about AFO air emissions is unclear.²²¹ First, this is untrue; a number of studies have already been produced.²²² Second, the CAA is a precautionary statute, and requires regulation of pollution even in the face of uncertain science. In the CAA’s early history, legislative discussions surrounding the EPA Administrator’s decision to require decreased concentrations of lead in gasoline reveal as much: “‘Regulation later’ as a regulatory approach really means using humans as guinea pigs, and should be considered socially unacceptable.”²²³ To delay regulation of an entire industry known to emit substantial levels of dangerous pollutants is to subvert the very precautionary essence upon which the CAA was formulated.²²⁴

B. The Agreement Also Provides a “Safe Harbor” to Agribusiness

1. The Agreement is an Incentive to Pollute

In addition to delaying regulation of AFOs for several more years, the EPA’s Agreement gives participating AFOs a “safe har-

219. CLAUDIA COPELAND, CONG. RESEARCH SERV., LIBRARY OF CONG., AIR QUALITY ISSUES AND ANIMAL AGRICULTURE: EPA’S AIR COMPLIANCE AGREEMENT 5 (2005) [hereinafter COPELAND, EPA’S AIR COMPLIANCE AGREEMENT].

220. *Id.*

221. Air Compliance Agreement, *supra* note 20, at 4958.

222. *See, e.g., supra* note 7.

223. H.R. REP. NO. 95-294, at 46 (1977), as reprinted in 1977 U.S.C.C.A.N. 1077, 1124.

224. *See, e.g.,* INDUR M. GOKLANY, THE PRECAUTIONARY PRINCIPLE: A CRITICAL APPRAISAL OF ENVIRONMENTAL RISK ASSESSMENT 4 (2001) (“It can also be argued that the 1970 Clean Air Act effectively operationalized the absolutist version of the precautionary principle.”). For more information about the precautionary principle, see Robert V. Percival, *Who’s Afraid of the Precautionary Principle?*, 23 PACE ENVTL. L. REV. 21 (2005-2006).

bor” from air pollution liability.²²⁵ The EPA’s Agreement is actually not just a monitoring plan, but also a promise to grant AFOs immunity from enforcement of CAA violations. In exchange for paying a small fine, AFOs that sign up to participate in the Agreement receive a guarantee that the EPA will not sue the operations for violations occurring before and during the Agreement, and an additional period after the monitoring ends.²²⁶ A total of 6267 farms are participating in the project,²²⁷ but only thirty-six or fewer of the participating AFOs will actually be monitored.²²⁸ While the thirty-six AFOs selected for monitoring have an incentive to keep emissions low, the remaining 6231 participants have a great incentive to pollute.²²⁹ Ninety-nine percent of AFOs nationwide will essentially be off the hook from potential enforcement until sometime after the study concludes.

2. The EPA Removes its Statutory Authority to Sue for CAA Violations

The CAA gives the EPA Administrator the authority to sue sources that do not comply with CAA emissions limits or other pollution control provisions; “The Administrator shall, as appropriate . . . commence a civil action [against a major source] for a permanent or temporary injunction, or to assess and recover a civil penalty of not more than \$25,000 per day for each violation”²³⁰ In promising participating AFOs that it will not sue for exceeding past or present emissions limitations, however, the Agreement removes from the EPA its statutory authority to sue sources for non-compliance with CAA provisions. Furthermore, it

225. COPELAND, EPA’S AIR COMPLIANCE AGREEMENT, *supra* note 219, at 4. The safe harbor provision has received widespread criticism from environmentalists. *See, e.g., Agreement Eases Fines for Farms That Pollute*, N.Y. TIMES, Jan. 31, 2006, at A15 (quoting Ed Hopkins, environmental quality director for the Sierra Club, describing the Agreement as a “free ride on the backs of the public”); Press Release, Sierra Club, Sierra Club Response to EPA’s Backroom Deal with the Meat Industry: Statement by Ed Hopkins, Environmental Quality Director (Jan. 21, 2005) (describing the Agreement as “a get out of jail free card”); Press Release, Global Resource Action Center for the Environment, Family Farmers Blast EPA’s Sweetheart Deal with Meat Industry (Jan. 21, 2005) (describing the Agreement as a “sweetheart deal [that] provides cover for polluters but will have residents paying through the nose”).

226. COPELAND, EPA’S AIR COMPLIANCE AGREEMENT, *supra* note 219, at 4-5.

227. EPA Press Release, *supra* note 217.

228. COPELAND, EPA’S AIR COMPLIANCE AGREEMENT, *supra* note 219, at 4.

229. *See id.*

230. 42 U.S.C. § 7413(b). This amount rises with inflation, and the current penalty maximum is \$32,500. *See* 40 C.F.R. § 19.4 tbl. 1 (2006).

is probable that the EPA will not bring suits against non-participating AFOs during the Agreement period.²³¹

3. The EPA Removes the Power of the Citizen Suit

Furthermore, through the safe harbor, the EPA also makes one of the CAA's most important regulatory tools—the citizen suit—inapplicable to AFOs. Through the citizen suit provision, the CAA provides citizens with a powerful tool to enforce the CAA.²³² This provision is particularly useful and important when agencies fail to enforce the Act for certain sectors, which appears to be the case with industrial animal agriculture. The Agreement's immunity provision, however, gives participating operations the guarantee that the EPA will not sue participants for past violations. While the Agreement does not prohibit citizens from suing participating AFOs, it does have the effect of preventing citizen suits. It is unlikely that any court would find for the citizen plaintiff against an AFO that had relied on the Agreement.²³³

4. The EPA Already Has Authority to Monitor AFO Emissions

Under the Agreement, the EPA will monitor emissions from a few dozen participating AFOs. The CAA, however, already gives the EPA Administrator the authority to require monitoring of any polluting source; "[T]he Administrator may require any person who owns or operates any emissions source . . . to . . . sample such emissions. . . ."²³⁴ Since the EPA has the authority to monitor AFO emissions without the Air Compliance Agreement, the monitoring program established by the Agreement is wholly unnecessary.

5. Participants' Fines Are Unreasonably Low

Additionally, participating AFOs pay a fine based on the size of the operation.²³⁵ Participants owning a single AFO, which is

231. See *supra* note 211 and accompanying text.

232. See 42 U.S.C. § 7604(a).

233. See Brownfield Ag News for America, Webcast: EPA Clean Air Compliance (Apr. 19, 2005), <http://www.brownfieldnetwork.com/gestalt/go.cfm?objectid=23509CD7-DD1C-77FD-67A5AF7F0ED5ADF6> (click on "Webcast: EPA Clean Air Compliance Agreement" to listen to webcast) [hereinafter Air Compliance Agreement Webcast] (lawyer for National Pork Producers Council explains that signing up for the Agreement would constitute a solid defense against any citizen suit).

234. 42 U.S.C. § 7414(a)(1)(D).

235. Air Compliance Agreement, *supra* note 20, at 4966.

not big enough to qualify as a CAFO, pay \$200, participants owning operations that do qualify as CAFOs pay \$500 per farm, and participants owning operations with “10 times the total number of animals that defines the ‘large Concentrated Animal Feeding Operation’ threshold” pay \$1000 per operation.²³⁶ Compared to the civil penalties of up to \$27,500 per day per each violation that the EPA or citizens can request from violators of the CAA, a fine averaging only \$500 is unreasonably low and hardly an adequate enforcement technique. Agribusiness representatives themselves refer to the penalty as being equivalent to a mere traffic violation fine.²³⁷

C. Has Industrial Animal Agriculture Captured the EPA?

It seems like the EPA has gone to great lengths to create a monitoring system that it already had the power to require. Why would the agency do this? The EPA calls the Agreement an “incentive for AFOs to participate.”²³⁸ Perhaps this is true. However, it is more likely that the EPA has been “captured” by industrial animal agriculture. Capture, sometimes called “interest group theory” or “capture theory,” is a term emerging from the field of administrative law.²³⁹ It refers to the process of administrative agencies making regulations based not on the public welfare, but on “underlying private interests that are affected by regulation.”²⁴⁰

The EPA has been captured by the industries it regulates before. In the mid-1970s, for example, Congress brought to the public’s attention the EPA’s “capture by industry and its subversion of congressional will at the expense of increased public health hazards” when the EPA “relied on industry data in registering pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act.”²⁴¹ Also, in the early 1980s, Administrator Anne

236. *Id.*

237. Air Compliance Agreement Webcast, *supra* note 233.

238. EPA Press Release, *supra* note 217.

239. See PETER L. STRAUSS, ET AL., ADMINISTRATIVE LAW: CASES AND COMMENTS 31 (10th ed. 2003) (quoting JERRY L. MASHAW AND DAVID L. HARFST, THE STRUGGLE FOR AUTO SAFETY 7-10 (1990)).

240. *Id.* at 32.

241. *Id.* at 211 (quoting Richard J. Lazarus, *The Neglected Question of Congressional Oversight of EPA*, 54 LAW & CONTEMP. PROBS. 205 (1991)).

Gorsuch and other EPA officials were said to be entering into "sweetheart deals" with industry.²⁴²

The formulation of the Agreement appears to be a result of industrial animal agriculture's capture of the EPA because it was written almost entirely by agribusiness representatives. As noted earlier, the EPA issued a settlement agreement with Premium Standard Farms in 2001. The agreement required the corporation to conduct emissions monitoring, but provided that if the AFO was found to exceed the major source threshold for emissions, Premium Standard would not be held to be in violation of the CAA for past emissions.²⁴³ The AFO also was given a cure period to come into compliance.²⁴⁴ If this sounds strikingly similar to the EPA's Agreement, that is because it is essentially the same principle, only the EPA has applied it on a national scale.²⁴⁵ Richard Schwartz, the lawyer who represented Premium Standard Farms in the EPA case and negotiated the settlement agreement, also drafted the preliminary version of the EPA's Agreement.²⁴⁶

After *Premium Standard*, it seems the industrial animal agriculture sector grew nervous that enforcement actions would be applied to the entire industry. A coalition of agribusiness interests soon formed, no other enforcement actions were brought, and after three years of discussions between industry representatives and the EPA, the Agreement was unveiled.²⁴⁷ Citizens were never invited to participate in these discussions.²⁴⁸ Knowing this makes it

242. *Id.* at 212.

243. See Consent Decree Between United States of America and Citizens Legal Environmental Action Network, Inc. and Premium Standard Farms, Inc. and Continental Grain Company, Inc. ¶ 64(a)-(b), Citizens Legal Env'tl. Network, Inc. v. Premium Standard Farms, No. 97-6073-CV-W-6, Citizens Legal Env'tl. Network, Inc. v. Cont'l Grain Co., No. 98-6099-CV-W-6 (W.D. Mo. 2001) [hereinafter Consent Decree]; see also Air Compliance Agreement Webcast, *supra* note 233.

244. Consent Decree, *supra* note 242, ¶ 64(c); see also Air Compliance Agreement Webcast, *supra* note 233.

245. Air Compliance Agreement Webcast, *supra* note 233 (Attorney for National Pork Producers Council explains that applying the Premium Standard agreement on a national scale was his idea).

246. *Id.* Richard Schwartz is a partner of law firm Crowell & Moring, LLP, and serves as environmental counsel for the National Pork Producers Council. *Id.*

247. The Sierra Club reveals how livestock industry lobbyists essentially drafted the Air Compliance Agreement for the EPA. See Press Release, Sierra Club, New Documents Show How Bush Administration Gave Meat Industry Control Over Factory Farm Pollution Policy (May 17, 2004), available at http://www.sierraclub.org/press-room/cafo_papers/ (click on links to see emails between the EPA and lobbyists, a list of agribusinesses participating in drafting the Agreement, and agribusiness's outline of the Agreement).

248. See Press Release, Sierra Club, *supra* note 225.

difficult to interpret the process in which the Agreement was formed as anything other than the capture of the EPA by industry.²⁴⁹

VI. A BETTER REGULATORY RESPONSE: PROPOSALS FOR CHANGE NOW

With solid evidence that AFOs are indeed on a par with industrial sources of pollution, the EPA should expend resources to develop substantive compliance schemes under the CAA instead of waiting several years to determine whether AFOs are worthy of CAA regulation. If the EPA could unleash itself from the power of agribusiness, it would likely find that the statutory authority already exists to regulate AFOs under the CAA. Introducing regulation upon an industry that continuously resists regulation and exerts considerable influence on the EPA is understandably tricky. However, the regulatory world should know that the CAA can presently regulate at least the bigger AFOs under its current statutory authority, and a regulatory system can be developed based on existing models.

A. Use Existing CAA Authority to Regulate AFOs

Under the CAA's current framework, factory-style farms can be regulated. As shown in Part III, to fall under CAA regulation, sources must be "major." Certainly some bigger AFOs meet this threshold. Threemile, for example, not only meets it but is nearly thirty times above the major source threshold for ammonia.²⁵⁰ Measuring emissions from factory-style farms is arguably more challenging than measuring emissions from traditional "smoke-stack" industrial sources, since AFOs lack smokestacks through which all emissions escape. However, AFOs do possess exhaust pipes attached to the confinement facilities, manure lagoons, and pipes from which manure is spread onto the land, which would not be terribly hard to measure. The EPA could presently regulate at least the bigger AFOs using the major source threshold.

249. Citing the problem of capture and other issues, a coalition of environmentalists challenged the Agreement. *See Ass'n of Irrigated Residents v. U.S. EPA*, No. 05-1177 (D.C. Cir. filed Sept. May 27, 2005). EPA has not yet submitted a response, but the agency's reply brief is due February 9, 2007. Telephone Interview with Michele Merkel, Senior Counsel, Env'tl. Integrity Project, in Wash. D.C. (Jan. 25, 2007).

250. *See discussion supra* Part IV.C.

B. Tie CWA CAFO Permits to CAA Permits**1. The CWA Already Requires CAFO Regulation**

Alternatively, instead of using the major source mechanism to trigger regulation of AFOs under the CAA, the EPA could simply link the CWA CAFO permit program to CAA regulation. The CWA, as the lone federal regulatory of CAFO pollution, requires all CAFOs to obtain NPDES permits.²⁵¹ Each state administers its own NPDES permit program for CAFOs.²⁵² Under the program, CAFOs must apply to the delegated state permitting agency and if approved, the CAFO receives a permit, which allows it to operate under specific terms and conditions.²⁵³ CAFOs must create waste management programs, for example, which explain how the CAFO will effectively manage animal waste.²⁵⁴ Additionally, CAFOs are required to measure, monitor, and report pollution (mainly of animal waste) discharges.²⁵⁵

2. The CWA Permit Program Could Be Linked to a CAA Regulatory Program

Regulators have long advocated for a “multi-media” approach to regulation.²⁵⁶ It makes sense to combine regulation of air and water pollutants, especially for sectors like animal agriculture, where the presence of water pollution generally also indicates the presence of air pollution.²⁵⁷ The linking of CWA CAFO permits to CAA permits would accomplish this innovative multi-media approach to environmental regulation.

Furthermore, a multi-media approach would be relatively easy to accomplish for CAFOs. The CWA already regulates thousands of CAFOs;²⁵⁸ local pollution control agencies would not

251. See *supra* note 18 and accompanying text.

252. See, e.g., Natural Res. Div., Or. Dep't of Agric., Confined Animal Feeding Operations, http://egov.oregon.gov/ODA/NRD/cafo_front.shtml (last visited Jan. 14, 2007).

253. See, e.g., NATURAL RES. DIV., OR. DEP'T OF AGRIC., OREGON CONFINED ANIMAL FEEDING OPERATION GENERAL PERMIT NUMBER 1 (Oct. 1, 2003), available at http://egov.oregon.gov/ODA/NRD/docs/pdf/cafo_gnlpmt.pdf.

254. *Id.* at 10 (Oregon's CAFO general permit).

255. *Id.* at 12-13.

256. See Marc Ribaud & Marca Weinberg, *Improving Air and Water Quality Can be Two Sides of the Same Coin*, AMBER WAVES, Sept. 2005, at 34, available at <http://www.ers.usda.gov/AmberWaves/September05/Features/ImprovingAirandWater.htm>.

257. See *id.*

258. See Office of Enforcement & Compliance Assurance, EPA, *supra* note 11, at 2 (stating that of the approximately 18,700 CAFOs in the United States, 8,100, or forty-four percent, have NPDES permits).

have to bring CAFOs under brand new regulation, but instead simply add air pollution control requirements to existing CWA CAFO permits. This approach would also alleviate the EPA's fear of regulating the entire farm universe, which, as J.B. Ruhl points out, is "a daunting prospect."²⁵⁹ While linking the CAFO CWA permit program to air pollution regulation would only regulate CAFOs, and not all 450,000 AFOs across the nation, it would certainly bring the worst polluters of industrial animal agriculture under CAA regulation.

C. Use Idaho's New Scheme as a Model

Another alternative would be for the EPA to follow some of the innovative air pollution control techniques that have emerged from western states. Idaho, for example, has developed a creative solution to deal with the problem of excessive ammonia emissions from dairies. In 2004, the Idaho Conservation League (ICL) sued owners of a dairy outside of Jerome, Idaho for failing to obtain a CAA permit for ammonia, hydrogen sulfide, and particulate matter emissions.²⁶⁰ The result of the suit was the creation of a rulemaking clarifying Idaho dairies' obligations to comply with the CAA.²⁶¹ The rulemaking, known as a "Permit by Rule" (PBR), was developed jointly by representatives of the dairy industry including the Idaho Dairymen's Association and the Milk Producers of Idaho, environmental groups such as the ICL, and state agencies including the Idaho State Department of Agriculture (ISDA) and the Idaho Department of Environmental Quality (DEQ).²⁶²

Under the PBR, dairies that emit over one hundred tons of ammonia per year are automatically subject to a permit, which includes pollution control requirements.²⁶³ Each dairy's emissions are calculated using a formula based on the number of animal units and type of manure collection system used, and dairies meeting the threshold must register with the DEQ and imple-

259. Ruhl, *supra* note 50, at 329.

260. *Idaho Conservation League v. Boer*, 362 F. Supp. 2d 1211, 1212-13 (D. Idaho 2004).

261. Telephone Interview with Bill Eddy, Attorney, Advocates for the West, in Boise, Idaho. (Oct. 15, 2006).

262. See Idaho Dep't of Env'tl. Quality, Air Quality: Permit by Rule for Dairy Farmers, http://www.deq.idaho.gov/air/permits_forms/permitting/pbr_dairies.cfm (last visited Jan. 14, 2007) (click on "Rules for the Control of Ammonia from Dairy Farms" to see rule).

263. *Id.*

ment certain best management practices (BMPs).²⁶⁴ Each BMP is assigned a value, and dairies have the flexibility to choose which BMPs they will use, as long the BMPs add up to twenty-seven points.²⁶⁵ The EPA could consider a similar PBR and implement Idaho's strategy nationwide, for not just dairies, but all AFOs.²⁶⁶

VII. CONCLUSION

This article has shown that AFOs (including CAFOs, the larger AFOs) are major sources of air pollution, and should be regulated as such under the CAA. The pollutants that factory-style farms emit are dangerous—some are even listed as hazardous under CERCLA. Controlling emissions from waste lagoons, confinement facilities, and land is necessary in order to reduce health problems such as respiratory disease, and environmental problems including acid rain, smog, and global warming.

Scientific studies clarify the dangers of AFO emissions, and citizen and environmental groups, judges, and legislators have responded with pleas to reduce the pollution threat of industrial animal agriculture. However, the EPA seems content to allow AFOs to continue to operate unfettered for several more years, under the ruse that more scientific studies are necessary to determine the real threat. The EPA's answer, the Air Compliance Agreement, is full of problematic provisions and is potentially illegal. The Agreement subverts the precautionary spirit inherent in the CAA, and does little more than illustrate that industrial agriculture has captured the EPA in its influential grip.

The EPA currently possesses the statutory authority in the CAA to regulate AFOs, and the agency could easily model a new regulatory scheme on existing CAFO regulatory programs. Admittedly, the regulation of industrial animal agriculture is bound to be a difficult process, especially because the agribusiness lobby is powerful and unwilling to be regulated. However, there is no excuse for delaying regulation in the face of a dangerous pollution threat. The EPA, the agricultural industry, and the public must come to understand that at some point a farm stops being a farm,

264. *Id.*

265. *Id.*

266. The PBR is not a perfect solution to dairy emissions, and in fact has been criticized for being too weak. Telephone Interview with Bill Eddy, *supra* note 260. The EPA should examine Idaho's PBR to learn how to strengthen such a scheme for implementation on a national scale.

and starts being an industrial operation. At this point, exemptions are inexcusable, and delay is unconscionable. Failure to regulate is simply hogwash.