

Regulations Governing Discharges of Pollutants from Concentrated Animal Feeding Operations

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On November 20, 2008, the United States Environmental Protection Agency (hereinafter “EPA”) promulgated a final rule amending the regulations governing the discharge of pollutants to the waters of the United States from Concentrated Animal Feeding Operations (hereinafter “CAFOs”).¹ This final rule followed nearly 20 years of research, rulemaking, and litigation with respect to the standards governing discharges from agricultural facilities.

These materials outline the new requirements applicable to the discharge of water pollutants from CAFOs. The materials begin by providing background information regarding discharges from CAFOs, the statutory basis for EPA regulation of such discharges, and the original CAFO regulations adopted in the late-1970s. The materials then outline the development of the current regulations from the revised CAFO regulations promulgated by the EPA in 2003² to the subsequent invalidation of several key provisions of the 2003 Rule in the *Waterkeeper* decision³ and the EPA’s response to that decision with the 2008 CAFO Rule. Finally, these materials conclude with a brief examination of another hot topic among the EPA and CAFOs – the recent changes to the regulations governing air emissions of hazardous substances from CAFOs.

BACKGROUND INFORMATION

I. Defining CAFOs – the following definitions were adopted by the EPA in the 2003 CAFO Rule and have not been changed in the 2008 Rule.

- A. Animal Feeding Operation (“AFO”)—a facility where animals are confined for at least 45 days per year and where vegetation is not sustained during the normal growing season.⁴
- B. Concentrated Animal Feeding Operation (“CAFO”)—an AFO that is statutorily defined as either a Large CAFO or a Medium CAFO, or an AFO that is

¹ Revised National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines for Concentrated Animal Feeding Operations in Response to the Waterkeeper Decision, 73 Fed. Reg. 70418-86 (Nov. 20, 2008) (amending 40 C.F.R. Parts 9, 122, & 412) (hereinafter “2008 CAFO Rule”).

² National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations (CAFOs), 68 Fed. Reg. 7176-7274 (Feb. 12, 2003) (hereinafter “2003 CAFO Rule”).

³ *Waterkeeper Alliance, Inc., et. al. v. EPA*, 399 F.3d 486 (2d Cir. 2005).

⁴ 2003 CAFO Rule, 68 Fed. Reg. at 7265 (codified at 40 C.F.R. § 122.23(b)(1)).

designated as a CAFO by the permitting authority because “it is a significant contributor of pollutants to waters of the United States.”⁵

1. Large Concentrated Animal Feeding Operation (“Large CAFO”)—an AFO that confines a number of animals in excess of specified thresholds, including 700 dairy cows, 1,000 beef cattle, 2,500 swine weighing at least 55 pounds, 10,000 swine weighing less than 55 pounds, 30,000 laying hens or broilers in a facility using a liquid manure handling system, or 125,000 chickens in a facility using a non-liquid manure handling system.⁶
2. Medium Concentrated Animal Feeding Operation (“Medium CAFO”)—an AFO from which pollutants are discharged (either directly or through a man-made device) into waters of the United States and that confines a number of animals within specified ranges, including 200-699 dairy cows, 300-999 beef cattle, 750-2,499 swine weighing at least 55 pounds, 3,000-9,999 swine weighing less than 55 pounds, 9,000-29,999 laying hens or broilers in a facility using a liquid manure handling system, or 37,500-124,999 chickens in a facility using a non-liquid manure handling system.⁷

II. Scope of the Issue—Discharges from CAFOs

- A. Nationally, 1.3 million farms are engaged in raising livestock, including 238,000 facilities that are defined as AFOs. These AFOs produce more than 500 million tons of manure each year (more than 3 times the estimated amount of human sanitary waste produced in the United States each year).⁸
- B. When applied properly, animal manure is a beneficial agricultural product that provides valuable nutrients for the fertilization of crops.⁹ But when not properly managed, animal manure may “pose substantial risks to the environment and public health.”¹⁰
 1. Pollutants that may be present in animal manure include (1) excess nutrients; (2) organic matter; (3) solids (including manure, feed, bedding, hair or feathers, and animal corpses); (4) pathogens; (5) salts; (6) trace

⁵ 2003 CAFO Rule, 68 Fed. Reg. at 7265-7266 (codified at 40 C.F.R. §§ 122.23(b)(2), 122.23(c)).

⁶ 2003 CAFO Rule, 68 Fed. Reg. at 7265-7266 (codified at 40 C.F.R. § 122.23(b)(4)).

⁷ 2003 CAFO Rule, 68 Fed. Reg. at 7266 (codified at 40 C.F.R. § 122.23(b)(6)).

⁸ 2003 CAFO Rule Preamble, 68 Fed. Reg. at 7179-7180.

⁹ 2003 CAFO Rule Preamble, 68 Fed. Reg. at 7197.

¹⁰ 2003 CAFO Rule Preamble, 68 Fed. Reg. at 7179.

elements; (7) odorous gases; (8) antibiotics; (9) pesticides; and (10) hormones.¹¹

- C. In its *National Water Quality Inventory: 2000 Report*, the EPA identified agriculture as the leading contributor to water quality impairments in rivers and streams (129,000 river miles impaired); the leading contributor to water quality impairments in lakes, ponds, and reservoirs (3.2 million lake acres impaired); and the fifth-leading contributor to water quality impairments in estuaries (2,800 square miles of estuaries impaired).¹²

III. Statutory Basis for CAFO Regulations—the Clean Water Act

- A. Statutory Purpose—Congress adopted the Clean Water Act in 1972 “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”¹³
- B. General Prohibition of Unauthorized Discharges—the Clean Water Act generally prohibits the discharge of pollutants from any “point source” to the waters of the United States unless such discharge is authorized under a National Pollutant Discharge Elimination System (“NPDES”) permit.¹⁴
1. Point Sources—the Clean Water Act defines a “point source” as “any discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged.” The statute also lists several examples of “point sources,” including CAFOs. But the statute also specifically excludes “agricultural stormwater discharges” from the definition of “point source.”¹⁵
 2. State Programs—NPDES permits may be issued by states with a federally approved permitting system, or if no such system exists, by the EPA.¹⁶
 3. Types of Permits—NPDES permits may be either individual permits that are specifically tailored for an individual facility or general permits that

¹¹ 2003 CAFO Rule Preamble, 68 Fed. Reg. at 7235-7236.

¹² 2003 CAFO Rule Preamble, 68 Fed. Reg. at 7237.

¹³ 33 U.S.C. § 1251(a) (2006).

¹⁴ See 33 U.S.C. §§ 1311(a) (providing that “the discharge of any pollutant by any person shall be unlawful” unless such discharge complies with applicable effluent limitations and permit restrictions), 1311(e) (providing that “[e]ffluent limitations . . . shall be applied to all point sources of discharge of pollutants”), 1342 (authorizing the issuance of “a permit for the discharge of any pollutant, or combination of pollutants”) (2006).

¹⁵ 33 U.S.C. § 1362(14) (2006).

¹⁶ 33 U.S.C. §§ 1342(a)-1342(b) (2006).

are applicable to broad categories that involve similar operations and wastes.¹⁷

C. Effluent Discharge Limitations—NPDES permits must incorporate national “restrictions on the quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters.”¹⁸ The effluent limitations included in NPDES permits are based on general effluent limitation guidelines promulgated by the EPA in accordance with the technological standards contained in the Clean Water Act.¹⁹

1. Best Practicable Control Technology Currently Available—with respect to existing point sources, effluent limitations must “require the application of the best practicable control technology currently available.”²⁰ These standards are typically determined “based on the average of the best performances of facilities within the industry of various sizes, processes or other common characteristics.”²¹
2. Best Available Technology Economically Achievable—with respect to existing point sources, effluent limitations for specific categories and classes of facilities must also “require application of the best available technology economically achievable” that “will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants,” including the elimination of all discharges if such elimination is “technologically and economically achievable for a category or class of point sources.”²² In determining these standards, the EPA considers, cost age of equipment and facilities, processes employed, engineering aspects of the control technology, potential process changes, and other environmental impacts (e.g., energy requirements); achievability depends on the total cost of the technology to the industry and the overall effect on the industry’s financial health.²³
3. Best Conventional Pollutant Control Technology Economically Achievable—with respect to the discharge of conventional pollutants

¹⁷ See 2003 CAFO Rule Preamble, 68 Fed. Reg. at 7184.

¹⁸ *Waterkeeper*, 399 F.3d at 491 (internal punctuation omitted); see also 40 C.F.R. § 122.2 (2008) (defining “effluent limitation” as “any restriction imposed by the Director on quantities, discharge rates, and concentrations of ‘pollutants’ which are ‘discharged’ from ‘point sources’ into ‘waters of the United States’, ‘the waters of the ‘contiguous zone,’ or the ocean”).

¹⁹ See 33 U.S.C. § 1311 (2006).

²⁰ 33 U.S.C. § 1311(b)(1)(A) (2006).

²¹ 2003 CAFO Rule Preamble, 68 Fed. Reg. at 7185.

²² 33 U.S.C. § 1311(b)(2)(A) (2006).

²³ 2003 CAFO Rule Preamble, 68 Fed. Reg. at 7185.

(biological oxygen demand, total suspended solids, fecal coliform bacteria, pH, oil, and grease) from existing facilities, EPA must identify “the degree of effluent reduction attainable through the application of the best conventional pollutant control technology (including measures and practices) for classes and categories of point sources.” In addition to the factors outlined above, the EPA must consider the cost-reasonableness of the technology, including the relationship of the costs to the benefits derived and a comparison of the cost to the cost of the same level of reduction by a municipal water treatment facility.²⁴

4. New Source Performance Standards—new facilities must comply with effluent limitations that reflect “the greatest level of effluent reduction” that is “achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.” In establishing new source performance standards, the EPA must consider the cost of achieving the effluent reduction, any non-water environmental impacts, and energy requirements.²⁵

D. Public Participation—the Clean Water Act broadly provides that “[p]ublic participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program . . . shall be provided for, encouraged, and assisted by the [EPA] and the States.”²⁶

1. Public Hearings—the Clean Water Act requires that there be an “opportunity for public hearing” before an NPDES permit is issued by the EPA and that approved state programs “insure that the public . . . receive[s] notice of each application for a permit” and “provide[s] an opportunity for public hearing before a ruling on each such application.”²⁷
2. Public Availability of Permits—the Clean Water Act requires that a copy of each permit application and each NPDES permit issued must be made available to the public.²⁸
3. Public Enforcement—the Clean Water Act allows “any citizen” to bring a civil action against any person for a violation of an effluent discharge

²⁴ 33 U.S.C. § 1314(b)(4) (2006).

²⁵ 33 U.S.C. §§ 1316(a)(1), 1316(b)(1)(B), 1316(e) (2006).

²⁶ 33 U.S.C. § 1251(e) (2006).

²⁷ 33 U.S.C. §§ 1342(a), 1342(b)(3) (2006).

²⁸ 33 U.S.C. § 1342(j) (2006).

limitation or against the EPA for failure to perform any non-discretionary act under the statute.²⁹

IV. Original CAFO Regulations under the Clean Water Act

- A. The EPA first issued regulations governing discharges from CAFOs on February 14, 1974 (effluent limitations), and March 18, 1976 (NPDES permit regulations).³⁰
- B. Although these original regulations defined AFOs as CAFOs based on the number of animals confined in the facility, the regulations also provided that no AFO was a CAFO if it discharged only during a 25-year, 24-hour storm.³¹
- C. The original regulations prohibited discharges of pollutants from CAFOs “except when a chronic or catastrophic storm caused an overflow from a facility that had been designed, constructed, and operated to contain manure, process wastewater and runoff resulting from a 25-year, 24-hour storm.” But these regulations only applied to discharges from the production area of the CAFO and did not consider discharges from the field application of manure.³²

2003 CAFO RULE

I. Duty to Apply for NPDES Permit Coverage

- A. The 2003 CAFO Rule required that “[a]ll CAFO owners or operators” must seek coverage under an NPDES permit.³³ If a facility confines multiple species of animals and the number of any one species exceeds the threshold number of animals to be defined as a CAFO, any discharge from the facility—even discharges from species of animals that do not exceed the CAFO thresholds—must be authorized by an NPDES permit.³⁴

²⁹ 33 U.S.C. § 1365(a) (2006).

³⁰ 2003 CAFO Rule Preamble, 68 Fed. Reg. at 7186.

³¹ 2003 CAFO Rule Preamble, 68 Fed. Reg. at 7186.

³² 2003 CAFO Rule Preamble, 68 Fed. Reg. at 7186; *see also* James H. Andreasen, *Concentrated Animal Feeding Operations: A Program in Transition*, NATURAL RESOURCES AND ENVIRONMENT, Spring 2007, at 45.

³³ 2003 CAFO Rule, 68 Fed. Reg. at 7265-7266 (codified at 40 C.F.R. §§ 122.21(a)(1), 122.23(d)(1)).

³⁴ 2003 CAFO Rule, at § 3, 68 Fed. Reg. at 7265 (codified at 40 C.F.R. § 122.23(a)).

- B. Exception—a CAFO was not required to apply for an NPDES permit under the 2003 CAFO Rule if the facility requested and received a certification that it had “no potential to discharge.”³⁵
1. The “no potential to discharge” standard meant that there was “no potential for any CAFO manure, litter or process wastewater to be added to waters of the United States under any circumstance or climatic condition.”³⁶
 2. Before certifying that a CAFO has “no potential to discharge,” the permitting authority was required to provide notice to the public and information regarding the facility’s operations and the basis for the requested certification.³⁷
 3. Even if a CAFO received a determination that it has “no potential to discharge,” the facility would be liable for any discharge of pollutants that were not authorized by an NPDES permit.³⁸
- C. Duty to Maintain Permit Coverage—the 2003 CAFO Rule required a permitted CAFO to apply to renew its permit at least 180 days before expiration of the permit unless the facility (1) ceased operations or was no longer a CAFO, and (2) the permittee demonstrated that there is no remaining potential for a discharge of manure, litter or process wastewater that was generated while the operation was a CAFO.³⁹

II. Land Application of Manure, Litter and Process Wastewater from CAFOs

- A. The 2003 CAFO Rule expressly provided that “[t]he discharge of manure, litter or process wastewater to waters of the United States from a CAFO as a result of the application of that manure, litter or process wastewater by the CAFO to land areas under its control is a discharge from that CAFO subject to NPDES permit requirements, except where it is an agricultural stormwater discharge.”⁴⁰
- B. Agricultural Stormwater Discharges—under the 2003 CAFO Rule, if manure is applied to fields “in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients,” any “precipitation-related discharge of manure, litter or process wastewater from land

³⁵ 2003 CAFO Rule, 68 Fed. Reg. at 7267 (codified at 40 C.F.R. § 122.23(d)(2)).

³⁶ 2003 CAFO Rule, 68 Fed. Reg. at 7267 (codified at 40 C.F.R. § 122.23(f)(1)).

³⁷ 2003 CAFO Rule, 68 Fed. Reg. at 7267 (codified at 40 C.F.R. § 122.23(l)(3)).

³⁸ 2003 CAFO Rule, 68 Fed. Reg. at 7267 (codified at 40 C.F.R. § 122.23(f)(5)).

³⁹ 2003 CAFO Rule, 68 Fed. Reg. at 7268 (codified at 40 C.F.R. § 122.23(h)).

⁴⁰ 2003 CAFO Rule, 68 Fed. Reg. at 7267 (codified at 40 C.F.R. § 122.23(e)).

areas under the control of a CAFO is an agricultural stormwater discharge” and therefore not subject to NPDES permit requirements.⁴¹

- C. Nutrient Management Plans—the 2003 CAFO Rule required that an NPDES permit issued to a CAFO must include a requirement that the CAFO develop a nutrient management plan that “include[s] best management practices and procedures necessary to implement applicable effluent limitations and standards.”⁴²
1. Nutrient Management Plan Requirements—under the 2003 CAFO Rule, a CAFO’s nutrient management plan must include provisions that (1) ensure adequate storage of manure, litter and process wastewater (including proper operation and maintenance procedures); (2) ensure proper management of mortalities; (3) ensure diversion of clean water; (4) prevent direct contact between animals and waters of the United States; (5) ensure proper handling of chemicals; (6) identify appropriate site specific conservation practices to control runoff of pollutants; (7) identify manure and soil testing protocols; (8) establish land application protocols that ensure appropriate agricultural utilization of nutrients; and (9) identify specific records to be maintained to document the implementation and management of the nutrient management plan requirements.⁴³
 2. Recordkeeping Requirements—the 2003 CAFO Rule requires a permittee to keep a copy of the CAFO’s nutrient management plan on site and to maintain and make available to the permitting authority upon request all necessary implementation and management records for 5 years.⁴⁴
- D. Annual Reports—a permittee must submit an annual report that includes (1) the number and type of animals confined at the facility; (2) the estimated amount of manure produced by the CAFO in the previous year; (3) the estimated amount of manure transferred to other persons in the previous year; (4) the total number of land application acres covered by the CAFO’s nutrient management plan; (5) the total number of acres under the control of the CAFO and used for land application of manure in the previous year; (6) a summary of discharges from the CAFO’s production area in the previous year; and (7) a statement of whether the nutrient management plan was developed or approved by a certified nutrient management planner.⁴⁵

⁴¹ 2003 CAFO Rule, 68 Fed. Reg. at 7267 (codified at 40 C.F.R. § 122.23(e)).

⁴² 2003 CAFO Rule, 68 Fed. Reg. at 7268 (codified at 40 C.F.R. § 122.42(e)(1)).

⁴³ 2003 CAFO Rule, 68 Fed. Reg. at 7268 (codified at 40 C.F.R. § 122.42(e)(1)).

⁴⁴ 2003 CAFO Rule, 68 Fed. Reg. at 7268 (codified at 40 C.F.R. § 122.42(e)(2)).

⁴⁵ 2003 CAFO Rule, 68 Fed. Reg. at 7268 (codified at 40 C.F.R. § 122.42(e)(4)).

III. Effluent Limitation Guidelines Applicable to CAFOs

A. Categories of Effluent Limitation Guidelines—the effluent limitation guidelines applicable to CAFOs are divided into four categories based on the type of animal confined at the facility.

1. The first category of effluent limitation guidelines apply to discharges from the production areas of Horse and Sheep CAFOs.⁴⁶
2. The second category of effluent limitation guidelines apply to discharges from the production areas of Duck CAFOs.⁴⁷
3. The third category of effluent limitation guidelines apply to Large Dairy Cow and Cattle CAFOs.⁴⁸
4. The fourth category of effluent limitation guidelines apply to Large Swine, Poultry, and Veal CAFOs.⁴⁹

B. Best Management Practices for Land Application of Manure, Litter, and Process Wastewater

1. Applicability—the best management practices for the land application of manure, litter, and process wastewater contained in the 2003 CAFO Rule apply to Large Dairy Cow, Cattle, Swine, Poultry, and Veal CAFOs.⁵⁰
2. Nutrient Management Plan—the 2003 CAFO Rule requires each CAFO that land applies manure, litter, or process wastewater to develop and implement a nutrient management plan “based on a field-specific assessment of the potential for nitrogen and phosphorus transport from the field.” The nutrient management plan must address “the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters.”⁵¹
3. Determination of Application Rates—under the 2003 CAFO Rule, a CAFO that applies manure, litter, or process wastewater to land under its control must determine application rates to “minimize phosphorus and

⁴⁶ 2003 CAFO Rule, 68 Fed. Reg. at 7270 (codified at 40 C.F.R. § 412.10).

⁴⁷ 2003 CAFO Rule, 68 Fed. Reg. at 7271 (codified at 40 C.F.R. § 412.20).

⁴⁸ 2003 CAFO Rule, 68 Fed. Reg. at 7271 (codified at 40 C.F.R. § 412.30).

⁴⁹ 2003 CAFO Rule, 68 Fed. Reg. at 7273 (codified at 40 C.F.R. § 412.40).

⁵⁰ 2003 CAFO Rule, 68 Fed. Reg. at 7270 (codified at 40 C.F.R. § 412.4(a)).

⁵¹ 2003 CAFO Rule, 68 Fed. Reg. at 7270 (codified at 40 C.F.R. § 412.4(c)(1)).

nitrogen transport from the field to surface waters” according to technical standards established by the EPA.⁵²

4. Manure and Soil Testing—the 2003 CAFO Rule requires CAFOs to analyze the nitrogen and phosphorus content of manure at least once per year, and of soil at least once every five years, and to use the results of these tests to determine the appropriate application rates for manure, litter, and process wastewater.⁵³
5. Land Application Equipment Inspection—the 2003 CAFO Rule requires the operator of a CAFO to periodically inspect land application equipment for leaks.⁵⁴
6. Setback Requirements—under the 2003 CAFO Rule, a CAFO must not apply manure, litter, or process wastewater within 100 feet of any down-gradient surface waters or conduits to surface waters, unless the CAFO either (1) substitutes a 35-foot vegetated buffer for the 100-foot setback, or (2) demonstrates that a setback or buffer is not necessary because of alternative conservation practices or field-specific conditions.⁵⁵

C. Existing Dairy Cow, Cattle, Swine, Poultry, and Veal Effluent Limitation Guidelines—the 2003 CAFO Rule requires that existing dairy cow, cattle, swine, poultry, and veal CAFOs satisfy the following effluent discharge limitations:

1. Production Area Discharges—production areas may not discharge manure, litter, or process wastewater into waters of the United States unless “precipitation causes an overflow of manure, litter, or process wastewater” and “[t]he production area is designed, constructed, operated and maintained to contain all manure, litter, and process wastewater including the runoff and the direct precipitation from a 25-year, 24-hour rainfall event.”⁵⁶
2. Land Application Area Discharges—discharges from land application areas are subject to the best management practices outlined above and the applicable recordkeeping requirements.⁵⁷

⁵² 2003 CAFO Rule, 68 Fed. Reg. at 7270 (codified at 40 C.F.R. § 412.4(c)(2)).

⁵³ 2003 CAFO Rule, 68 Fed. Reg. at 7270 (codified at 40 C.F.R. § 412.4(c)(3)).

⁵⁴ 2003 CAFO Rule, 68 Fed. Reg. at 7270 (codified at 40 C.F.R. § 412.4(c)(4)).

⁵⁵ 2003 CAFO Rule, 68 Fed. Reg. at 7270 (codified at 40 C.F.R. § 412.4(c)(5)).

⁵⁶ 2003 CAFO Rule, 68 Fed. Reg. at 7271, 7273 (codified at 40 C.F.R. §§ 412.31(a)(1), 412.43(a)).

⁵⁷ 2003 CAFO Rule, 68 Fed. Reg. at 7272-7273 (amending 40 C.F.R. §§ 412.31(b), 412.43(b)).

3. Additional Effluent Limitation Guidelines—CAFOs must conduct routine visual inspections of the production areas and correct any deficiencies discovered, install depth markers for all open surface liquid impoundments, and dispose of mortalities in a manner that prevents the discharge of pollutants.⁵⁸
4. Recordkeeping for Production Areas—CAFOs must maintain for 5 years records of (1) inspections and corrections of deficiencies, (2) the depth of manure and process wastewater in liquid impoundments, (3) mortality management and practices, (4) the design of manure storage structures, and (5) the date, time, and volume of any overflows.⁵⁹
5. Recordkeeping for Land Application Areas—CAFOs must maintain the site-specific nutrient management plan and records of (1) expected crop yields, (2) dates of field application, (3) weather conditions at the time of application, (4) test methods used to sample manure and soil, (5) results of manure and soil testing, (6) the basis for determining manure application rates, (7) total nitrogen and phosphorus to be applied to each field, (8) amount of nitrogen and phosphorus actually applied to each field, (9) method of application, and (10) dates of equipment inspection.⁶⁰

D. New Dairy Cow, Cattle, Swine, Poultry, and Veal Effluent Limitation Guidelines

1. New Dairy Cow and Cattle CAFOs—under the 2003 CAFO Rule, new Dairy Cow and Cattle CAFOs are subject to the same effluent limitation guidelines as existing Dairy Cow and Cattle CAFOs.⁶¹
2. New Swine, Veal Calf, Chicken, and Turkey CAFOs—the 2003 CAFO Rule requires that new swine, poultry, and veal CAFOs satisfy the following effluent discharge limitations:
 - a. Production Area Discharges—the production area may not discharge manure, litter, or process wastewater into waters of the United States. But under the 2003 CAFO Rule, a facility is deemed to fulfill this requirement if “[w]aste management and storage facilities [are] designed, constructed, operated, and maintained to contain all manure, litter, and process wastewater

⁵⁸ 2003 CAFO Rule, 68 Fed. Reg. at 7272, 7274 (codified at 40 C.F.R. §§ 412.37(a), 412.47(a)).

⁵⁹ 2003 CAFO Rule, 68 Fed. Reg. at 7272-7274 (codified at 40 C.F.R. §§ 412.37(b), 412.47(b)).

⁶⁰ 2003 CAFO Rule, 68 Fed. Reg. at 7273-7274 (codified at 40 C.F.R. §§ 412.37(c)(3), 412.47(c)).

⁶¹ 2003 CAFO Rule, 68 Fed. Reg. at 7272 (codified at 40 C.F.R. § 412.35).

including the runoff and the direct precipitation from a 100-year, 24-hour rainfall event.⁶²

- b. Land Application Area Discharges—new swine, poultry, and veal CAFOs are subject to the same land application effluent limitation guidelines as existing facilities.⁶³
- c. Additional Effluent Limitation Guidelines and Recordkeeping Requirements—new swine, poultry, and veal CAFOs are subject to the same additional effluent limitation guidelines and recordkeeping requirements as existing facilities.⁶⁴
- d. Voluntary Superior Environmental Performance Standards—the 2003 CAFO Rule allowed a new swine, poultry, or veal facility to request that the permitting authority establish alternative permit limitations “based upon a demonstration that site-specific innovative technologies will achieve overall environmental performance across all media which is equal to or superior to the reductions achieved by baseline standards” (i.e., any production area water pollutant discharges must be offset by reductions in other types of pollutants).⁶⁵

WATERKEEPER DECISION

I. Case Background

- A. Parties—a number of environmental groups (e.g., Waterkeeper Alliance, Inc., Sierra Club, and Natural Resources Defense Council, Inc.) and agricultural producer groups (e.g., American Farm Bureau Federation, National Chicken Council, and National Pork Producers Council) brought suit against the EPA challenging various aspects of the 2003 CAFO Rule.
- B. Challenges—the *Waterkeeper* Court divided the challenges into three broad categories: “(1) challenges to the permitting scheme established by the [2003] CAFO Rule; (2) challenges to the types of discharges subject to regulation under the [2003] CAFO Rule; and (3) challenges to the effluent limitation guidelines established by the [2003] CAFO Rule.”⁶⁶

⁶² 2003 CAFO Rule, 68 Fed. Reg. at 7273 (codified at 40 C.F.R. § 412.46(a)).

⁶³ 2003 CAFO Rule, 68 Fed. Reg. at 7273 (codified at 40 C.F.R. § 412.46(b)).

⁶⁴ 2003 CAFO Rule, 68 Fed. Reg. at 7274 (codified at 40 C.F.R. § 412.47).

⁶⁵ 2003 CAFO Rule, 68 Fed. Reg. at 7273-7274 (codified at 40 C.F.R. § 412.46(d)).

⁶⁶ *Waterkeeper*, 399 F.3d at 497.

II. Challenges to the Permitting Scheme

- A. Failure to Require Review of Nutrient Management Plans—the environmental groups challenged the 2003 CAFO Rule’s failure to require the permitting authority to review CAFOs nutrient management plans before issuing an NPDES permit.⁶⁷
1. The Second Circuit began its analysis of this challenge by concluding that the Clean Water Act requires that permits authorizing the discharge of pollutants must “ensure that every discharge of pollutants will comply with all applicable effluent limitations and standards.”⁶⁸
 2. The Court also noted that the 2003 CAFO Rule did not merely require the development and implementation of *any* nutrient management plan; rather, the 2003 CAFO Rule required a plan that satisfies specific best management practices (outlined at section 412.4 of the new regulations).⁶⁹
 3. Despite this requirement, the Court concluded that the 2003 CAFO Rule did not “require that NPDES permitting authorities review the nutrient management plans to ensure that the nutrient management plans designed by the Large CAFOs will *in fact* reduce land application discharges in a way that ‘achieve[s] realistic production goals, while minimizing nitrogen and phosphorous movement to surface waters.’ ” The Court also concluded that the 2003 CAFO Rule did not “adequately prevent Large CAFOs ‘from misunderstanding or misrepresenting’ their specific situation and adopting improper or inappropriate nutrient management plans, with improper or inappropriate waste application rates.”⁷⁰
 4. EPA argued that nutrient management plan review is not required because the plans are only a planning tool and not effluent limitation guidelines themselves. The Court concluded, however, that even if the plans are not themselves effluent limitations, the requirement to develop and implement a nutrient management plan that complies with the regulation is an effluent limitation, and the 2003 CAFO Rule did not ensure that CAFOs complied with that requirement.⁷¹
 5. The Second Circuit therefore held that “[b]y failing to provide for permitting authority review of the nutrient management plans, the [2003]

⁶⁷ *Id.* at 498-502.

⁶⁸ *Id.* at 498.

⁶⁹ *Id.* at 499.

⁷⁰ *Id.* at 500.

⁷¹ *Id.* at 501.

CAFO Rule plainly violates [the Clean Water Act] and is otherwise arbitrary and capricious under the Administrative Procedures Act.⁷²

B. Failure to Require Inclusion of the Terms of Nutrient Management Plan in NPDES Permits—the environmental groups also challenged the failure of the 2003 CAFO Rule to require that the terms of a CAFO’s nutrient management plan be included in its NPDES permit.⁷³

1. The Clean Water Act requires that “all applicable effluent limitations must be included in each NPDES permit.”⁷⁴
2. Under the Clean Water Act, an “effluent limitation” is “ ‘any restriction established by a [permitting authority] on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources.’ ”⁷⁵
3. Because the 2003 CAFO Rule did not impose numerical effluent limitations for the land application of manure, but instead established non-numerical best management practices, and because “the only restrictions actually imposed on land application discharges are those restrictions imposed by the various terms of the nutrient management plan,” the Second Circuit concluded that the terms of nutrient management plans are themselves effluent limitations. Therefore, by failing to include those terms in NPDES permits, the 2003 CAFO Rule violated the Clean Water Act and the Administrative Procedure Act.⁷⁶

C. Lack of Public Participation—the environmental groups challenged the failure of the 2003 CAFO Rule to allow adequate public participation in the permitting process by not providing public access to CAFO nutrient management plans.⁷⁷

1. The Clean Water Act generally favors “[p]ublic participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program.” The statute also specifically requires an “opportunity for a public hearing” before an NPDES permit is issued and public access to each permit application and each permit issued.⁷⁸

⁷² *Id.* at 499.

⁷³ *Id.* at 502-03.

⁷⁴ *Id.* at 502 (citing 33 U.S.C. §§ 1311(a), 1311(b), 1342(a)).

⁷⁵ *Id.* at 502 (quoting 33 U.S.C. § 1362(11) (emphasis added in case)).

⁷⁶ *Id.* at 502-03.

⁷⁷ *Id.* at 503-04.

⁷⁸ *Id.* at 503 (quoting 33 U.S.C. §§ 1251(e), 1342(a), 1342(b)(3), 1342(j)).

2. Although the Court noted that the Preamble to the 2003 CAFO Rule indicates that the EPA *expects* that CAFO nutrient management plans will be made available to the public, the rule itself does not require that the plans be accessible by the public.⁷⁹
3. Based on its previous holding that “the terms of the nutrient management plans constitute effluent limitations that should have been included in NPDES permits,” the Court concluded that the 2003 CAFO Rule “deprive[d] the public of its right to assist in the ‘development, revision, and enforcement of . . . [an] *effluent limitation*.’”⁸⁰ The 2003 CAFO Rule also deprived the public of its right to enforce the Clean Water Act through citizen suits because the inability to access nutrient management plans would prevent the public from enforcing the terms of those plans.⁸¹
4. Because the 2003 CAFO Rule did not allow adequate public participation in the permitting process, the Second Circuit held that the Rule violated “the plain dictates of 33 U.S.C. § 1251(e).”⁸²

D. Duty to Apply for an NPDES Permit—the agricultural producer groups challenged the 2003 CAFO Rule’s requirement that all CAFOs apply for coverage under an NPDES permit.⁸³

1. The Second Circuit began its analysis by noting that the EPA’s authority under the Clean Water Act is limited to “the discharge of pollutants.” Thus, the Court concluded that “in the absence of an actual addition of any pollutant to navigable waters from any point, there is no point source discharge, no statutory violation, no statutory obligation of point sources to comply with EPA regulations for point source discharges, and no statutory obligation of point sources to seek or obtain an NPDES permit in the first instance.”⁸⁴
2. Although it “appreciated the policy considerations underlying the EPA’s approach in the [2003] CAFO Rule,” the Court held that the EPA exceeded its authority under the Clean Water Act by requiring that all CAFOs, regardless of whether they have actually discharged any

⁷⁹ *Id.* (citing 2003 CAFO Rule Preamble, 68 Fed. Reg. at 7233).

⁸⁰ *Id.* (quoting 33 U.S.C. § 1251(e) (emphasis and second alteration in case)).

⁸¹ *Id.* at 503-04.

⁸² *Id.* at 504.

⁸³ *Id.* at 504-06.

⁸⁴ *Id.* at 504-05.

pollutant, must either apply an NPDES permit or affirmatively demonstrate that it does not have a potential to discharge.⁸⁵

III. Challenges to the Types of Discharge Regulated

A. Agricultural Stormwater Exception—the environmental groups challenged the implementation of the agricultural stormwater exception in the 2003 CAFO Rule because the definition of “point source” in the Clean Water Act includes all discharges from CAFOs.⁸⁶

1. Although the statutory definition of “point source” includes CAFOs, the definition also expressly exempts “agricultural stormwater discharges.”⁸⁷ In the 2003 CAFO Rule, the EPA defined an “agricultural stormwater discharge” as any “precipitation-related discharge of manure, litter, or process wastewater from land areas under the control of a CAFO” if the manure was “applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization.”⁸⁸
2. The Court concluded that the definition of “point source” was ambiguous,⁸⁹ and that both the Clean Water Act and the 2003 CAFO Rule sought “to remove liability for agriculture-related discharges primarily caused by nature, while maintaining liability for other discharges.”⁹⁰
3. Because the EPA’s construction of the statute “as generally authorizing the regulation of CAFO discharges, but exempting such discharges from regulation to the extent that they constitute agricultural stormwater,” was reasonable,⁹¹ the Second Circuit rejected the challenge to the agricultural stormwater exception in the 2003 CAFO Rule.⁹²

B. Regulation of “Uncollected” Discharges—the agricultural producer groups challenged the 2003 CAFO Rule based on its regulation of “uncollected” or “unchannelized” discharges from land areas under a CAFO’s control.⁹³

⁸⁵ *Id.* at 505.

⁸⁶ *Id.* at 506-09.

⁸⁷ *Id.* at 507 (quoting 33 U.S.C. § 1362(14)).

⁸⁸ *Id.* (quoting 40 C.F.R. § 122.23(e)).

⁸⁹ *Id.*

⁹⁰ *Id.* at 508-09.

⁹¹ *Id.* at 507.

⁹² *Id.* at 509.

⁹³ *Id.* at 510-11.

1. The Clean Water Act specifically lists CAFOs as an example of a point source,⁹⁴ and the Second Circuit previously held that “the term point source refers to ‘the proximate source from which the pollutant is directly introduced to [a] destination water body.’ ”⁹⁵
2. Because “there could never be a discharge of pollutants from the [land application areas under a CAFO’s control] to the surface waters” without the application of manure by the CAFO, the Court held that “any land application discharge that is not agricultural stormwater is, definitionally, a discharge ‘from’ a CAFO that can be regulated as a point source discharge.”⁹⁶
3. In reaching this conclusion, the Court noted that “[l]and application areas are . . . an integral and indeed indispensable part of CAFO operations.” The Court also reasoned that a CAFO is itself a “channel” under the Clean Water Act, and that requiring land application runoff to be separately channelized before being considered a point source discharge would impose a new requirement that pollutants be channelized twice before the EPA is authorized to regulate the discharge.⁹⁷

IV. Challenges to Effluent Limitation Guidelines

A. Best Available Technology Economically Achievable Guidelines

1. The environmental groups claimed that in establishing the “best available technology economically achievable” effluent limitation guidelines, the EPA failed to base the guidelines on “the single-best performing or optimally operating CAFO in each category.”⁹⁸ The Court rejected this challenge, concluding that the “EPA extensively surveyed available technologies” and “either adopted the technology employed by the best performers or declined to do so for permissible reasons.”⁹⁹
2. The environmental groups also claimed that the EPA should have adopted “best available technology economically achievable” guidelines for Dairy Cow and Cattle CAFOs that require groundwater monitoring and discharge controls.¹⁰⁰ The Court concluded that the record supports the

⁹⁴ *Id.* at 510 (quoting 33 U.S.C. § 1362(14)).

⁹⁵ *Id.* (quoting *Catskill Mountains Chapter of Trout Unlimited, Inc. v. City of New York*, 273 F.3d 481, 493 (2d Cir. 2001)).

⁹⁶ *Id.*

⁹⁷ *Id.* at 510-11.

⁹⁸ *Id.* at 512.

⁹⁹ *Id.* at 512-13.

¹⁰⁰ *Id.* at 513-14.

EPA's determination that standard adopted is better "because groundwater-related requirements are highly dependent on site-specific variables," and because such testing is "economically prohibitive and not likely to result in any significant reduction in groundwater pollution."¹⁰¹

3. Finally, the environmental groups claimed that the EPA improperly rejected "best available technology economically achievable" guidelines for Swine, Poultry, and Veal CAFOs that would have prohibited overflows from the production area under any circumstances.¹⁰² The Court concluded that the EPA reasonably determined that CAFOs could not bear the costs associated with such a guideline.¹⁰³

B. Best Conventional Pollutant Control Technology Guidelines for Pathogens—the environmental groups also challenged the EPA's failure to adopt effluent limitation guidelines specifically designed to reduce pathogen discharges. Although it concluded that the EPA may determine that the other effluent limitation guidelines adopted in the 2003 CAFO Rule are the best conventional pollutant control technology for reducing pathogen, the Court held that the EPA violated the Clean Water Act and the Administrative Procedures Act by failing to make an express finding that the effluent limitation guidelines adopted in the Rule are the best conventional pollutant control technology for reducing pathogens.¹⁰⁴

C. New Source Performance Standard for Swine, Poultry, and Veal CAFOs

1. In the proposed 2003 CAFO Rule, the EPA included various groundwater requirements and a total prohibition on production area discharges. In the Final 2003 CAFO Rule, however, the EPA made several changes, including (1) eliminating the proposed groundwater requirements, (2) allowing CAFOs to comply with the total prohibition requirement by designing, operating, and maintaining production areas that could contain the precipitation from a 100-year, 24-hour storm, and (3) allowing permitting authorities to establish alternative performance standards that would allow production area discharges if such discharges were offset by other pollution reductions.¹⁰⁵
2. The Court concluded that the EPA properly removed the groundwater requirements because the EPA's decision was supported by the record.¹⁰⁶

¹⁰¹ *Id.* at 514-15.

¹⁰² *Id.* at 514-16

¹⁰³ *Id.* at 518.

¹⁰⁴ *Id.* at 518-19.

¹⁰⁵ *Id.* at 520.

¹⁰⁶ *Id.*

3. With respect to the other challenges, however, the Court held that the record did not support the EPA's decisions and that the failure to indicate that such options were being considered before adoption of the final rule violated the public participation requirements of the Clean Water Act.¹⁰⁷
- D. Water Quality Based Effluent Limitations—finally, the environmental groups challenged the EPA's failure to promulgate water quality based effluent limitations and to bar states from doing so.¹⁰⁸
1. If discharges “would interfere with the attainment or maintenance” of water quality in specific areas, the Clean Water Act requires the EPA or the states to establish water quality based effluent limitations.¹⁰⁹
 2. With respect to agricultural stormwater discharges, the Court concluded that the EPA did not violate the Clean Water Act by failing to establish (and by prohibiting states from establishing) water quality based effluent limitations because such discharges are “statutorily exempt from any effluent limitations . . . because they are not point source discharges.”¹¹⁰
 3. But with respect to other discharges, the EPA did not “attempt[], in any way, to explain its failure to promulgate [water quality based effluent limitations] for CAFO discharges.” Because evidence in the record suggested that the technology-based guidelines may not always be sufficient to assure water quality, the Court held that the EPA violated the Clean Water Act and Administrative Procedure Act. The Court specifically instructed the EPA, on remand, to explain whether or not water quality based effluent limitations are needed and to explain whether or not states may promulgate such limitations.¹¹¹

2008 CAFO RULE

- I. **2008 CAFO Rule Background** –in response to the Second Circuit decision in the *Waterkeeper* case, the EPA promulgated a new CAFO Rule on November 20, 2008. In adopting the 2008 CAFO Rule, the EPA emphasized that most of the requirements in the 2003 CAFO Rule were either not challenged or upheld by the Court and thus remain in effect. The 2008 CAFO Rule addresses only those aspects of the 2003 CAFO Rule that were vacated by the *Waterkeeper* decision.¹¹²

¹⁰⁷ *Id.* at 520-21.

¹⁰⁸ *Id.* at 521-24.

¹⁰⁹ *Id.* at 521 (quoting 33 U.S.C. § 1312(a)).

¹¹⁰ *Id.* at 522.

¹¹¹ *Id.* at 522-23.

¹¹² 2008 CAFO Rule Preamble, 73 Fed. Reg. at 70420-70422.

II. Duty to Apply for NPDES Permit Coverage

- A. In response to the Second Circuit's holding that the EPA regulations only apply to actual discharges (and not potential discharges), the 2008 CAFO Rule limits the duty to seek permit coverage to CAFOs that "discharge or propose to discharge." The 2008 CAFO Rule further provides that "[a] CAFO proposes to discharge if it is designed, constructed, operated, or maintained such that a discharge will occur."¹¹³
1. Although the *Waterkeeper* decision and the 2008 CAFO Rule removed the federal requirement that all CAFOs must seek coverage under an NPDES permit, even if the facility does not discharge or propose to discharge, Minnesota law requires that the owner of all animal feedlots that are defined as CAFOs under federal law must apply for NPDES permits.¹¹⁴
- B. Duty to Maintain Permit Coverage—because CAFOs no longer have a duty to seek coverage under an NPDES permit unless the facility discharges or proposes to discharge, the 2008 CAFO Rule limits the duty to renew an NPDES permit to facilities that will "discharge or propose to discharge upon expiration of the permit."¹¹⁵
- C. General Permit Procedures—based on the Second Circuit's holdings regarding review of nutrient management plans and public participation in the permitting process, the 2008 CAFO Rule provides specific procedures for CAFOs seeking coverage under a general NPDES permit.¹¹⁶
1. Review by Permitting Authority—when a CAFO submits a notice of intent seeking authorization under a general NPDES permit, the permitting authority must review the document to ensure that it includes the necessary information, including a nutrient management plan that satisfies the applicable regulations and effluent limitations and standards.
 2. Public Review—if the notice of intent contains the necessary information, the permitting authority must notify the public of the proposal to grant coverage under a general permit and make the notice of intent (including the nutrient management plan) and draft terms of the nutrient management plan to be incorporated into the permit available for public review.
 3. Incorporation of Nutrient Management Plan Terms into Permit—when the permitting authority authorizes coverage under a general permit, "the

¹¹³ 2008 CAFO Rule, 73 Fed. Reg. at 70480-70481 (amending 40 C.F.R. § 122.23(d)(1)).

¹¹⁴ Minn. Rules 7020.0405, subp. 1(A).

¹¹⁵ 2008 CAFO Rule, 73 Fed. Reg. at 70481 (amending 40 C.F.R. § 122.23(g)).

¹¹⁶ 2008 CAFO Rule, 73 Fed. Reg. at 70481 (amending 40 C.F.R. § 122.23(h)).

terms of the nutrient management plan shall become incorporated as terms and conditions of the permit for the CAFO.”

4. Notice of Coverage—after granting coverage under a general permit, the permitting authority must notify the CAFO owner or operator and the public that coverage has been authorized and of the terms of the nutrient management plan that are incorporated into the terms and conditions of the permit.
- D. Deadline for Seeking Permit Coverage—if an existing facility became defined as CAFO on or after April 14, 2003, or if a new facility would not have been defined as a CAFO prior to that date, the deadline for the facility to seek coverage under an NPDES permit was February 27, 2009.¹¹⁷
 - E. Voluntary No Discharge Certification—although CAFOs do not have a duty to seek coverage under an NPDES permit under federal law if they do not discharge or propose to discharge, the 2008 CAFO Rule creates a voluntary process by which the owner or operator of a CAFO can certify that the CAFO does not discharge or propose to discharge.¹¹⁸ But because Minnesota law imposes a duty on all CAFOs to apply for an NPDES permit, even if they do not discharge or propose to discharge, the voluntary no discharge certification program established in the 2008 CAFO Rule will likely have no impact in Minnesota.¹¹⁹

III. Land Application of Manure, Litter, and Process Wastewater from CAFOs

- A. The *Waterkeeper* decision affirmed the EPA’s regulation of discharges from the land application of manure, litter, and process wastewater produced by CAFOs. As noted above, such a discharge is prohibited unless it is an agricultural stormwater discharge (a precipitation-related discharge from land areas under the control of a CAFO where manure has been applied in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients).¹²⁰
- B. Submission of Nutrient Management Plans—the 2008 CAFO Rule requires that a nutrient management plan that satisfies the necessary requirements must be submitted with an application for an individual permit or a notice of intent for a general permit.¹²¹

¹¹⁷ 2008 CAFO Rule, 73 Fed. Reg. at 70481 (amending 40 C.F.R. § 122.23(f)).

¹¹⁸ 2008 CAFO Rule, 73 Fed. Reg. at 70481-70483 (amending 40 C.F.R. § 122.23(i)(1)).

¹¹⁹ Minn. Rules 7020.0405, subp. 1(A).

¹²⁰ 2003 CAFO Rule, 68 Fed. Reg. at 7267 (codified at 40 C.F.R. § 122.23(e)).

¹²¹ 2008 CAFO Rule, 73 Fed. Reg. at 70480-70481 (amending 40 C.F.R. §§ 122.21(i)(1)(x), 122.23(d)(2)).

- C. Nutrient Management Plans for Permitted CAFOs—any NPDES permit issued to a CAFO must require compliance with the terms of the CAFO’s site-specific nutrient management plan. The terms of a nutrient management plan include “the information, protocols, best management practices, and other conditions” necessary to meet the applicable requirements and standards. At a minimum, the terms of a nutrient management plan include (1) the fields available for land application, (2) field-specific application rates that are properly developed to ensure appropriate agricultural utilization of nutrients, and (3) any timing limitations concerning land application of manure, litter, or process wastewater.¹²²
1. Linear Approach to Determining Application Rates—an approach that expresses specific rates of application as pounds of nitrogen and phosphorus. The nutrient management plan must specify the maximum application rates for each year of permit coverage and for each crop identified in the nutrient management plan with respect to each field to be used for land application.¹²³
 2. Narrative Approach to Determining Application Rates—an approach that expresses the calculations that will be used each year to determine the land application rates with respect to each field to be used for land application. Under the narrative approach, the CAFO must include a projection of (1) the planned crop rotation for each field during the period of permit coverage, (2) the amount of manure, litter, or process wastewater to be applied, (3) credits for all plant-available nitrogen in the field, (4) other additions of plant-available nitrogen and phosphorus, and (5) the predicted form, source, and method of application. The nutrient management plan may also include alternative crops that are not in the planned rotation.¹²⁴
 3. Changes to Nutrient Management Plans—a permittee must provide the permitting authority with the most current version of its nutrient management plan and identify any changes from the previous version. The permitting authority must review the revised plan and determine (1) whether it satisfies the applicable requirements, and (2) whether the changes require revision of the terms of the nutrient management plan that were incorporated in the permit.¹²⁵
 - a. No Revision Necessary—if no revision to the terms of the nutrient management plan that were incorporated in the permit are necessary, the CAFO may implement the revised plan upon notification from the permitting authority.

¹²² 2008 CAFO Rule, 73 Fed. Reg. at 70483 (amending 40 C.F.R. § 122.42(e)(5)).

¹²³ 2008 CAFO Rule, 73 Fed. Reg. at 70483 (amending 40 C.F.R. § 122.42(e)(5)(i)).

¹²⁴ 2008 CAFO Rule, 73 Fed. Reg. at 70483-70484 (amending 40 C.F.R. § 122.42(e)(5)(ii)).

¹²⁵ 2008 CAFO Rule, 73 Fed. Reg. at 70484-70485 (amending 40 C.F.R. § 122.42(e)(6)).

b. Non-Substantial Revisions Necessary—if revisions to the terms of the nutrient management plan that were incorporated in the permit are necessary, but such revisions are not substantial, the permitting authority must make the revised plan available to the public, revise the terms of the plan that are incorporated in the permit, and notify the owner or operator and the public of any changes to the terms of the plan that are incorporated into the permit.

(1) Substantial revisions include (a) the addition of new land application areas or new crops, (b) changes to maximum annual rates for land application or maximum amounts of nitrogen and phosphorus derived from all sources, and (c) other changes likely to increase the risk of nitrogen or phosphorus transport to waters of the United States.

c. Substantial Revisions Necessary— if revisions to the terms of the nutrient management plan that were incorporated in the permit are necessary, and such revisions are substantial, the permitting authority must notify the public and make the proposed changes and accompanying information available for public review and comment under the same procedures as draft permits. When the revised terms of the nutrient management plan are incorporated into the permit, the permitting authority must notify the owner or operator and the public of the final decision regarding the revisions.

D. Nutrient Management Plans for Unpermitted Large CAFOs—as with permitted CAFOs, the 2008 CAFO Rule clarifies that “a precipitation-related discharge of manure, litter, or process wastewater from land areas under the control of [an unpermitted Large CAFO] shall be considered an agricultural stormwater discharge only where the manure, litter, or process wastewater has been land applied in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients.”¹²⁶ The 2008 CAFO Rule also requires that unpermitted Large CAFOs maintain and make available to the permitting authority documentation regarding the development and implementation of the nutrient management plan.¹²⁷ Thus, if an unpermitted Large CAFO land applies manure, the CAFO must comply with the EPA regulations for the development, implementation, and recordkeeping associated with a nutrient management plan.

E. Annual Reports—in addition to the information that must be included in annual reports under the 2003 CAFO Rule,¹²⁸ the 2008 CAFO Rule requires that a

¹²⁶ 2008 CAFO Rule, 73 Fed. Reg. at 70481 (amending 40 C.F.R. § 122.23(e)(1)).

¹²⁷ 2008 CAFO Rule, 73 Fed. Reg. at 70481 (amending 40 C.F.R. § 122.23(e)(2)).

¹²⁸ 2003 CAFO Rule, 68 Fed. Reg. at 7268-7269 (codified at 40 C.F.R. § 122.42(e)(4)).

permittee include the following data in its annual report: (1) the actual crops planted and actual yields for each field, (2) the actual nitrogen and phosphorous content of the manure, litter, or process wastewater, (3) the maximum amounts of manure, litter, or process wastewater to be land applied, and (4) the amount of manure, litter, or process wastewater actually applied to each field during the previous year. Additionally, if a CAFO uses the narrative rate approach for its nutrient management plan, the annual report must include the results of any soil testing during the previous year, the data used to calculate application rates for each field, and the amount of supplemental fertilizer applied during the previous year.¹²⁹

III. Effluent Limitation Guidelines Applicable to CAFOs

- A. New Source Performance Standards for Swine, Poultry, and Veal CAFOs—the 2008 CAFO Rule retained the no discharge standard established for new Swine, Poultry, and Veal CAFOs in the 2003 Rule. But based on the *Waterkeeper* decision, the 2008 CAFO Rule removed the provision allowing a CAFO to satisfy the no discharge standard with a facility designed, constructed, operated, and maintained to contain precipitation from a 100-year, 24-hour rainfall. The 2008 Rule also removed the voluntary superior environmental performance standards that allowed CAFOs to offset discharges with improvements in other areas. Instead, the 2008 CAFO Rule allows a new swine, poultry, or veal CAFO to ask the permitting authority to “establish NPDES permit best management practice effluent limitations designed to ensure no discharge of manure, litter, or process wastewater based upon a site-specific evaluation of the CAFO’s open surface manure storage structure.”¹³⁰

AIR EMISSIONS FROM CAFOs

I. Background

- A. The Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”) and its implementing regulations require facilities that release hazardous substances into the air in excess of established thresholds must notify the EPA of such emissions.¹³¹
- B. Similarly, the Emergency Planning and Community Right-to-Know Act (“EPCRA”) and its implementing regulations require facilities that release

¹²⁹ 2008 CAFO Rule, 73 Fed. Reg. at 70483 (amending 40 C.F.R. § 122.42(e)(4)(viii)).

¹³⁰ 2008 CAFO Rule, 73 Fed. Reg. at 70485-70486 (amending 40 C.F.R. § 412.46).

¹³¹ See 42 U.S.C. § 9601 *et seq.*; 40 C.F.R. Part 302.

hazardous substances into the air in excess of the established thresholds must notify state and local emergency response officials.¹³²

- C. Ammonia and hydrogen sulfide, which are both identified as hazardous substances under CERCLA and EPCRA, are naturally emitted from animal manure, urine, and flatulence.
- D. Because these emissions are naturally occurring, and based on the presumed legislative intent of Congress in enacting these statutes, most producers believed that the CERCLA and EPCRA reporting requirements did not apply to routine emissions from animal waste at agricultural facilities.
- E. This presumption by agricultural producers was called into question court decisions that held that agricultural facilities were not exempt from the reporting requirements under CERCLA and EPCRA for emissions of hazardous substances produced by animal waste.¹³³

II. New EPA Regulations

- A. On December 9, 2008, the EPA issued a final rule amending the regulations implementing CERCLA and EPCRA. These amendments became effective on January 20, 2009.¹³⁴
- B. Under the revised regulations, “[r]eleases to the air of any hazardous substance from animal waste at farms” are specifically exempted from the EPA notification requirements under CERCLA.¹³⁵
- C. With respect to notifications to state and local officials under EPCRA, however, the revised regulations only exempt releases from animal waste at farms that are not Large CAFOs.¹³⁶
- D. Thus, the revised EPCRA regulations suggest that Large CAFOs may be required to report air emissions of ammonia, hydrogen sulfide, and other hazardous substances that exceed the established reporting thresholds.

¹³² See 42 U.S.C. § 11001 *et seq.*; 40 C.F.R. Part 355, *as amended by* Emergency Planning and Community Right-to-Know Act; Amendments to Emergency Planning and Notification; Emergency Release Notification and Hazardous Chemical Reporting; Final Rule, 73 Fed. Reg. 65452, 65467, 65469 (Nov. 3, 2008) (hereinafter “EPCRA Rule”).

¹³³ *E.g. Sierra Club, Inc. v. Tyson Foods, Inc.*, 299 F. Supp. 2d 693, 706 (W.D. Ky. 2003).

¹³⁴ CERCLA/EPCRA Administrative Reporting Exemption for Air Releases of Hazardous Substances from Animal Waste at Farms, 73 Fed. Reg. 76948 (Dec. 9, 2008) (hereinafter “Animal Waste Release Rule”).

¹³⁵ Animal Waste Release Rule, 73 Fed. Reg. at 76960 (amending 40 C.F.R. § 302.6(e)).

¹³⁶ Animal Waste Release Rule, 73 Fed. Reg. at 76960 (amending 40 C.F.R. § 355.31(g)).

1. The reporting thresholds for both ammonia and hydrogen sulfide are 100 pounds per day.¹³⁷

III. Problems in Determining Whether to Report under EPCRA

- A. The EPA recognizes that “[t]he amount of ammonia and hydrogen sulfide released [from animal feeding operations] will vary considerably, depending on feed, temperature, type of confinement and manure handling.”¹³⁸ At this time, there are no accepted methodologies for estimating the amount of ammonia, hydrogen sulfide, or other hazardous substances produced by animal feeding operations.
- B. In 2005, the EPA offered owners and operators of animal feeding operations an opportunity to enter into an air compliance agreement and participate in an air monitoring study that is intended to develop emissions estimating methodologies for animal feeding operations.¹³⁹ The EPA has indicated that facilities that entered into and are in compliance with such an agreement are not required to make EPCRA reports at this time.¹⁴⁰
- C. Until accepted estimating methodologies are established, the owner or operator of a CAFO must “perform good faith release calculations” to determine whether reporting is necessary.¹⁴¹
 1. The University of Minnesota Extension Service and the University of Nebraska-Lincoln have developed emission release estimating tools that producers may use in deciding whether an EPCRA report is required.¹⁴²

¹³⁷ EPCRA Rule, 73 Fed. Reg. at 65467, 65469 (to be codified at 40 C.F.R. Part 355, Appendix A).

¹³⁸ EPA Region 7 Fact Sheet: Rule Change Provides Exemptions from Reporting Requirements for Air Releases of Hazardous Substances from Farm Animal Waste, *available at* http://www.epa.gov/region07/factsheets/2009/exemptions_air_farm_animal_waste0109.htm (hereinafter “Region 7 Fact Sheet”).

¹³⁹ *See* Animal Waste Release Rule Preamble, 73 Fed. Reg. at 76951.

¹⁴⁰ EPA Office of Emergency Management Fact Sheet: CERCLA/EPCRA Administrative Reporting Exemption for Air Releases of Hazardous Substances from Animal Waste at Farms, *available at* http://www.epa.gov/emergencies/docs/chem/CAFO_rule_fact_sheet.pdf.

¹⁴¹ Region 7 Fact Sheet.

¹⁴² *See* UMN CAFO EPCRA Estimator Version 1.1, *available at* http://www.manure.umn.edu/applied/air_quality.html; New Air Emissions EPCRA Rule for Livestock & Poultry, *available at* <http://water.unl.edu/emissionsrule>.

IV. Reporting Procedures

- A. If a CAFO determines it releases a hazardous substance continuously and in a stable quantity that exceeds the threshold amount, the CAFO must provide an immediate oral notification to state and local emergency response officials.¹⁴³
- B. Within 30 days of the initial oral notification, the CAFO must provide a written follow-up notification of the continuous release to the same officials.¹⁴⁴

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¹⁴³ EPCRA Rule, 73 Fed. Reg. at 65465 (to be codified at 40 C.F.R. § 355.40(a)).

¹⁴⁴ EPCRA Rule, 73 Fed. Reg. at 65465 (to be codified at 40 C.F.R. § 355.40(b)).