

The Concentrated Animal Feeding Operation (CAFO) Revised Rule

By Michael R. Berman [\(1\)](#)

On December 16, 2002, the United States Environmental Protection Agency (U.S. EPA) announced a final rule that will require all large Concentrated Animal Feeding Operations (CAFOs) to obtain permits that will ensure they protect America's waters from wastewater and manure. The rule will control runoff from animal feeding operations, preventing billions of pounds of pollutants from entering America's waters. The new rule will help reduce what has been a growing problem - the fact that animal waste generated by CAFOs poses an increasing threat to the health of America's waters. The new rule will replace 25- year old technology requirements and permitting regulations that did not address today's environmental needs and did not keep pace with growth in the agricultural industry. [\(2\)](#)

U.S. EPA's regulatory actions are designed to complement the United States Department of Agriculture's (USDA) voluntary program and policies, resulting in seamless national environmental objectives for all livestock agriculture. [\(3\)](#) In keeping with principles of cooperative federalism, states are being given significant flexibility to find geographically appropriate means of implementing the CAFO rule. For example, states retain the authority to determine the type of permit - general or individual - to be issued to a given operation. This enables states to develop permits that take into account the size, location, and environmental risks that may be posed by an operation. States will also have substantial flexibility to tailor nutrient management plans for CAFOs, and may authorize alternative performance standards for existing and new CAFOs that will help promote the use of innovative technologies. [\(4\)](#)

The new rule was issued partly in response to a lawsuit. The Natural Resources Defense Council (NRDC) and Public Citizen, Inc. filed suit against the Agency, alleging violation of statutory authorities that require periodic review, update, and promulgation of effluent limitation guidelines. The amended consent decree required U.S. EPA to propose effluent guidelines for all feedlot sectors by December 15, 2000, and take final action by December 15, 2002. U.S. EPA took this opportunity not only to promulgate updated effluent limitation guidelines for CAFOs, [\(5\)](#) but also to strengthen the existing NPDES rules [\(6\)](#) to remove the

ambiguity as to which operations are covered by the rules.⁽⁷⁾ These changes also allowed U.S. EPA to address all aspects of ensuring effective manure management by large operations, including land application.⁽⁸⁾ The new rule was proposed on January 12, 2001⁽⁹⁾ and U.S. EPA received 13,000 public comments. The Administrator of U.S. EPA signed the final rule on December 15, 2002. The rule will take effect 60 days after being published in the Federal Register; publication is expected in late January or February of 2003. Currently about 4,500 operations are covered by permits. Because of the new rule, U.S. EPA expects that up to 11,000 additional facilities will be required to apply for permits by 2006.⁽¹⁰⁾

Under the new rule, all large CAFOs will be required to apply for a NPDES permit, submit an annual report, and develop and follow a plan for handling manure and wastewater. In addition, the rule places controls on land application of manure and wastewater, covers all major animal agriculture sectors, and increases public access to information through CAFO annual reports. The rule also eliminates current permitting exemptions and expands coverage over types of animals in three important ways: first, the rule eliminates the exemption that excuses CAFOs from applying for permits if they only discharge during large storms; second, the rule eliminates the exemption for operations that raise chickens with dry manure handling systems; and third, the rule extends coverage to immature swine and immature dairy cows.⁽¹¹⁾

What Exactly is a CAFO?

What exactly is a CAFO? CAFOs are defined as point sources by the Clean Water Act.⁽¹²⁾ Section 122.23 of the new CAFO rule states that CAFOs are point sources that require NPDES permits for discharges or potential discharges.⁽¹³⁾ In order to be a CAFO a facility first has to meet the definition of an Animal Feeding Operation (AFO). The new rule defines an AFO as a lot or facility where animals have been, are, or will be confined and maintained for a total of 45 days or more in any 12 month period, and in which crops, vegetation, forage growth, or post-harvest residues are not sustained over any portion of the lot or facility.⁽¹⁴⁾ For an AFO to be defined as a CAFO it must fall into one of three categories: Large CAFO, Medium CAFO or an AFO that is designated as a CAFO.⁽¹⁵⁾ In general, a facility is a Large CAFO if it stables or confines, for example, as many or more than 1,000 cattle, 700 dairy cows, 2,500 swine (55 pounds or more), 10,000 sheep, 125,000 chickens, 82,000 laying hens, or 55,000 turkeys.⁽¹⁶⁾ In general, a facility

is a Medium CAFO if it stables or confines, for example, a number of animals that fall within the following ranges: 300 to 999 cattle, 200 to 699 dairy cows, 750 to 2499 swine (55 pounds or more), 3,000 to 9,999 sheep, 37,500 to 124,999 chickens, 25,000 to 81,999 laying hens, or 16,500 to 54,999 turkeys. In addition, to be a medium CAFO the operation must discharge pollutants into waters of the United States by one of two methods: 1) through a man-made ditch, flushing system or other man-made device; or, 2) directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.⁽¹⁷⁾ In addition, the Director of the Illinois Environmental Protection Agency (State Director), and in certain cases the Regional administrator, may designate any AFO as a CAFO if it meets the criteria for Medium CAFOs (except for number of animals), an on-site inspection is conducted and a determination is made by the appropriate authority⁽¹⁸⁾ that it is a significant contributor of pollutants to waters of the United States.⁽¹⁹⁾

Once an operation is defined as a CAFO, the NPDES requirements apply with respect to all animals in confinement and all manure, litter and process wastewater generated by those animals or the production of those animals.⁽²⁰⁾

CAFOs Must Apply for an NPDES Permit

All CAFOs owners must apply for individual NPDES permits or submit a notice of intent for coverage under an NPDES general permit.⁽²¹⁾ The state of Illinois is authorized to administer the NPDES program, including the permitting of CAFOs. Illinois' general permit for CAFOs expired in 1999.⁽²²⁾ Therefore a CAFO that needs to apply for a permit needs to submit an application for an individual permit to the IEPA. One of the provisions in the new rule allows an owner or operator of a Large CAFO to request from the State Director a determination that the CAFO has "no potential to discharge" manure, litter or process wastewater under any circumstance or climactic condition. If this determination is granted by the Director, the owner or operator does not need to seek coverage under an NPDES permit.⁽²³⁾

The new rule also states clearly that the discharge of manure, litter and process wastewater from a CAFO to waters of the United States as a result of application to land areas under its control is subject to NPDES requirements, except where it is

an agricultural storm water discharge as provided in 33 U.S.C. 1362(14). A discharge is considered an agricultural storm water discharge when the manure, litter or process wastewater is applied in accordance with site specific nutrient management practices. [\(24\)](#)

When must a CAFO seek coverage under an NPDES permit? CAFOs that are covered under the current rule have an ongoing duty to apply prior to and following implementation of the new rule. Operations defined by the new rule as CAFOs that were not previously defined as CAFOs must seek to obtain coverage by a date specified by the State Director, but no later than three years after the publication of the new rule. New sources must seek to obtain coverage under a permit at least 180 days prior to the time that the CAFO commences operation. Generally speaking, facilities that are not defined as CAFOs by the new rule but become CAFOs (*e.g.* by expansion) after the new rule is in effect, but are not new sources, must seek to obtain coverage under a permit no later than 90 days after they become CAFOs. Operations that are designated as CAFOs must seek to obtain coverage under a permit no later than 90 days after receiving notice of the designation. [\(25\)](#)

Any permit issued to a CAFO must include: effluent limitations and standards, requirements to develop and implement a nutrient management plan (NMP), best management practices, and procedures necessary to implement applicable effluent limitations and standards. NMPs must be developed and implemented by December 31, 2006. [\(26\)](#) The NMPs must, among other things, identify conservation practices, testing procedures for manure, litter, process wastewater and soil, procedures for the land application of manure, litter and wastewater, and the records that need to be kept to document the implementation of the foregoing practices and procedures. The records need to be kept for five years. [\(27\)](#) A copy of the site-specific NMP must be maintained at the CAFO and made available to the Director upon request. [\(28\)](#)

If a Large CAFO wants to transfer manure, litter, or process wastewater to other persons, then it must provide the recipient with the most current nutrient analysis of the material provided and must retain records of this transaction. [\(29\)](#) Another significant requirement of the new rule is that all CAFOs must submit an annual report to the State Director. [\(30\)](#)

The State is the entity that will establish technical standards for determining the rate that nutrients will be applied to land and for large CAFOs these must be consistent with the requirements of 40 CFR 412.4(c)(2).⁽³¹⁾ If the State has not already set standards for Large CAFOs, then the State Director must do this within one year after the new rule is in effect, two years if legislation needs to be enacted.⁽³²⁾

Updated Effluent Guidelines

The updated effluent guidelines are in Part 412 of the Code of Federal Regulations. These guidelines apply to the permits issued to Large CAFOs. The guidelines provide, in part, that each CAFO must develop and implement best management practices for the land application of manure, litter and process wastewater for dairy and beef cattle, swine, poultry and veal calves. This is done through the development and implementation of an NMP.⁽³³⁾ Application rates for manure, litter and other process wastewater must minimize phosphorus and nitrogen transport from the field to surface waters in compliance with the technical standards for nutrient management established by the State Director.⁽³⁴⁾ Manure must be analyzed a minimum of once annually for nitrogen and phosphorus content, and soil analyzed a minimum of once every five (5) years for phosphorus content.⁽³⁵⁾

Subpart C of Part 412 contains specific guidelines for Dairy Cows and Cattle other than veal calves.⁽³⁶⁾ There must be no discharge of manure, litter and process wastewater from the production area of the CAFO, except when rain causes an overflow from a facility designed and maintained to contain the runoff from a 25-year, 24-hour rainfall event and the production area is operated in accordance with additional measures, such as visual inspections.⁽³⁷⁾ There is also a provision that allows for the development of voluntary alternative performance standards.⁽³⁸⁾

Subpart D of Part 412 contains specific guidelines for swine, poultry and veal calves. These CAFOs must meet similar standards as provided for Dairy Cows and Cattle in Subpart C, except that for new CAFO facilities under this Subpart there must be no discharge from the production area except where the production area is able to contain the runoff from a 100-year, 24-hour rainfall event and the production area is operated in accordance with additional measures, such as visual inspections.⁽³⁹⁾

U.S. EPA's final CAFO rule will provide substantial and measurable environmental and public health benefits. The rule significantly improves the way animal manure will be managed at large CAFOs. Together with USDA's voluntary programs, this rule will help protect the Nation's waters from nutrient over enrichment and eutrophication, which cause algal blooms and fish kills and help contribute to the expansion of the Gulf of Mexico dead zone. The rule will also reduce pathogens in drinking water and improve coastal water quality.⁽⁴⁰⁾

Conclusion

The new rule will require all large CAFOs to apply for a NPDES permit and develop and follow a plan for handling manure and wastewater. In addition, the rule places controls on land application of manure and wastewater, covers all major animal agriculture sectors, and increases public access to information through CAFO annual reports.

Endnote citations are to the new rule, unless specified "old rule".

1. Michael R. Berman received his B.A. from the University of Illinois and his J.D. from the University of Illinois School of Law. He is currently a Senior Attorney with the Office of Regional Counsel, Region 5, U.S. Environmental Protection Agency. The views expressed in this article are those of the author and do not necessarily represent those of U.S. EPA or any other federal agency.

2. U.S. EPA press release, dated December 16, 2002, and titled EPA and Agriculture Working Together to Improve America's Waters. It is available at web page: <http://www.epa.gov/npdes/>. Look under the topic, CAFO Final Rule. This web page also contains further information on the new rule.

3. Concentrated Animal Operations Rule, Information Sheet, p. 2, December 15, 2002. Available at web page listed in endnote 2.

4. See endnote 2.

5. 40 CFR Part 412.1 to 412.47. The new rules are to be published in the Federal Register. They can currently be found at the web page listed in endnote 2.

6. 40 CFR Part 122.23 (old rule).

7. See endnotes 3 and 6; 40 CFR Part 122.21 to 122.36.

8. See endnote 3.

9. Fed. Reg., Vol. 66, No. 9, pp. 2959-3145, January 12, 2001.

10. See endnote 1.

11. See endnote 1.

12. 33 U.S.C. §1362(14).

13. 40 CFR §122.23(a).

14. 40 CFR §122.23(b)(1).

15. 40 CFR §122.23(b)(2).

16. 40 CFR §122.23(b)(4).

17. 40 CFR §122.23.(b)(6).

18. i.e., State Director or Regional Administrator, or both, as specified in paragraph 122..23(c)(1)

19. 40 CFR §122.23(c).

20. 40 CFR §122.23(a).

21. 40 CFR §122.23(d).

22. There is a proposal for a general permit that was put out for public comment. However, the new federal CAFO regulations were made available to IEPA and the public after the proposed general permit was released. In order to provide a proposed general permit that is consistent with the new federal regulations, IEPA is going to issue a revised draft of the general permit in the future and reschedule a hearing at that time. See web page at <http://www.epa.state.il.us/>. See topic, Recent Public Notices.

23. 40 CFR §122.23(d)(2) and (f).

24. 40 CFR §122.23(e).

25. 40 CFR §122.23(g).

26. 40 CFR §122.42(e)(1).

27. 40 CFR §122.42(e)(1) and (2).

28. 40 CFR §122.42(e)(2)(ii).

29. 40 CFR §122.42(e)(3).

30. 40 CFR §122.42(e)(4).

31. 40 CFR §412.4(c)(2), discusses how application rates for manure, litter and wastewater are determined..

32. 40 CFR § 123.36 and 123.62(e).

33. 40 CFR §412.4(c)(1). There are also guidelines for horses, sheep and ducks.

34. 40 CFR §412(c)(2).

35. 40 CFR §412(c)(3).

36. Subpart A of Part 412 applies to horses and sheep; subpart B of Part 412

applies to ducks.

37. 40CFR §412.31 and 412.37.

38. 40 CFR §412.31(a)(2).

39. 40 CFR §412.46(a)(1).

40. See endnote 3.