

April 14, 2003

The Honorable Christine Todd Whitman
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460-0001

Dear Administrator Whitman:

I am writing to express concerns about the adequacy of the Environmental Protection Agency's (EPA) new rule for regulating wastewater discharges from concentrated animal feeding operations (CAFO's) and its plans for enforcement.¹ Although EPA made some improvements to the existing rule,² it significantly weakened the January 2001 proposal and failed to incorporate provisions important to protecting public health and the environment. Moreover, the General Accounting Office (GAO) reports that serious doubts remain about implementation of the rule, which was published on February 12, 2003 and becomes effective today.³

In particular, I have questions about: the extent of reduction of wastes which will actually occur; plans for evaluating the health risks associated with pathogens and other potential risks; the lack of standards for and a requirement for approval of nutrient management plans; the effectiveness of the nutrient management provisions; the lack of a requirement of groundwater and ambient water monitoring; whether the states and EPA are adequately equipped to implement the new requirements; and the contribution that the rule will make in meeting EPA's Clean Water goals.

¹ The rule, the National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations, was issued under authority of the Clean Water Act. The Act prohibits the discharge of pollutants from a point source into waters of the United States, except in compliance with the conditions of a National Pollutant Discharge Elimination System (NPDES) permit. CAFO's are expressly defined as a "point source" in the statute.

² The improvements include eliminating an exemption for livestock operations which only discharge during a 25-year, 24 hour storm period and requiring chicken operations that use dry manure handling systems to obtain permits. CAFO's are required to have nutrient management plans. 68 *Fed. Reg.* 7176 (February 12, 2003); U.S. General Accounting Office, *Livestock Agriculture: Increased EPA Oversight Will Improve Environmental Program for Concentrated Animal Feeding Operations*, GAO-03-285, January 2003 at 11 (hereinafter "GAO-03-285").

³ GAO-03-285 at 13-15; 68 *Fed. Reg.* 7176 (February 12, 2003). The rule provides for implementation of its requirements in phases.

At a hearing of the Committee on Governmental Affairs last year, the Riverkeeper for the Neuse River in North Carolina testified to his fears, now realized, that EPA would adopt regulations substantially weaker than those which it had proposed. Having suffered adverse health effects from poorly controlled wastes, he testified: “We cannot back off from tight regulations.”⁴ His testimony was compelling:

With more than 600 crab pots, and thousands of feet of gill netting, and a seafood store, and a number of boats and crews, my son and I fished that river. . . . Then the fish began getting sick. They had open, bleeding lesions all over their bodies. The same thing happened to the fishermen – to me and my son. Unfortunately, I had to leave commercial fishing. . . . In the past, animals were raised by farmers across America for the supermarkets. They were raised on small family farms spread out all over the country. Their animal waste was spread out all over the country, but what the industry did was “citify” the animals. They brought them into little confinement buildings . . . they are raised in their own stench. . . .⁵ When you confine animals or you “citify” them, you have to do the same thing for animals you do for people. You have to provide wastewater treatment facilities. But this industry has some how been able to escape treating their animal waste. . . .Citizens across America are suffering from health problems, because they are forced to live with the animal stench every day. Fishermen who fish the waters see this animal waste running down the rivers. . . .⁶

Data compiled by EPA confirms that animal feeding operations are significant contributors to impaired water quality in the nation’s rivers and lakes.⁷ The primary pollutants associated with animal waste are nutrients (particularly nitrogen and phosphorus), organic matter, solids, pathogens, and odorous/volatile compounds. The animal wastes are also a source of antibiotics, pesticides, hormones, and salts and trace elements. With regard to nutrients, EPA said in issuing the rule:

The *2000 Inventory* [National Water Quality] lists nutrients as the leading stressor of impaired lakes, ponds, and reservoirs. Nutrients are also ranked as the fifth leading stressor for impaired rivers and streams, are among the top 10 stressors of impaired estuaries, and are the second

⁴ *Public Health and Natural Resources: A Review of the Implementation of the Environmental Laws, Part I and II*, Hearing before Senate Committee on Governmental Affairs, S. Hrgs. 107-466 (March 7 and 13, 2002) at 84.

⁵ *Id.*, at 82-83.

⁶ *Id.*, at 83-84.

⁷ GAO-03-285 at 4. In the National Water Quality Inventory, 29 states specifically identified animal feeding operations as contributing to water quality impairments. U.S. Environmental Protection Agency, *Environmental and Economic Benefit Analysis of Final Revisions to the National Pollutant Discharge Elimination System Regulation and the Effluent Guidelines for Concentrated Animal Feeding Operations*, December 2002, at ES-6.

leading stressor reported for the Great Lakes. Manure nitrogen occurs in several forms, including ammonia and nitrate. . . . Ammonia is of environmental concern because it is toxic to aquatic life. . . . Excessive levels of nitrate in drinking water. . . can produce adverse human health impacts.⁸

. . .

These health risks include methemoglobinemia [blue-baby syndrome] in infants, spontaneous abortions, and increased incidence of stomach and esophageal cancers. Nitrate is not removed by conventional drinking water treatment process but requires additional relatively expensive treatment units.⁹

. . .

Phosphorus is of concern in surface waters because it is a nutrient that can lead to eutrophication and the resulting adverse impacts—fish kills, reduced biodiversity, objectionable tastes and odors, increased drinking water treatment costs, and growth of toxic organisms.¹⁰

Another pollutant contained in the waste, pathogens, poses a direct human health risk. The EPA said:

The *2000 Inventory* indicates that pathogens (specifically bacteria) are the leading stressor in impaired rivers and streams and the fourth leading stressor in impaired estuaries. . . . Multiple species of pathogens can be transmitted directly from a host animal's manure to surface water and pathogens already in surface water can increase in number because of loadings of animal manure nutrients and organic matter.

More than 150 pathogens found in livestock manure are associated with risks to humans, including the six human pathogens that account for more than 90% of food and waterborne diseases in humans. . . .¹¹

In light of the significant health and environmental risks identified by EPA itself, I am troubled that EPA adopted regulations significantly weaker than proposed. Accordingly, please provide me with the following information about the impacts of and the rationale for the final rule, as well as additional plans for addressing problems related to wastes from CAFO's.

⁸ 68 *Fed. Reg.* 7235 (February 12, 2003).

⁹ 68 *Fed. Reg.* 7238 (February 12, 2003).

¹⁰ 68 *Fed. Reg.* 7235 (February 12, 2003).

¹¹ 68 *Fed. Reg.* 7235-36 (February 12, 2003).

Reduction of pollutants and wastes and assessment of the impact of the reduction.

As noted above, EPA identified the nutrients, nitrogen and phosphorus, as a constituent of animal wastes of particular concern. In the proposed rule, EPA estimated that the nutrients contained in animal waste would be reduced by 56.6 to 59%, depending upon the option selected.¹² By contrast, the final rule estimates that nutrients discharged by large CAFO's will be reduced by 24% and medium CAFO's by 17%, for an overall reduction of 23%.¹³ Further, however, the *Environmental and Economic Benefits Analysis*, prepared to accompany the final rule, shows data that nutrient loadings would be reduced by only 12.4%.¹⁴

1. (A) Given the seriousness of the impacts of nutrients on our nation's waters, please explain why EPA adopted a final rule projected to result in significantly less reduction in nutrients compared to the original proposal.

(B) Please explain the apparent inconsistency between the data contained in the *Environmental and Economic Benefits* report and the explanation published in the *Federal Register*.

CAFO's are required to develop plans for how they will manage nutrients, including the application of manure to land. However, in the final rule, EPA did not impose requirements for these plans nor for the application of manure to land, with the exception of a "best management practice" requiring setbacks. For example, EPA did not include methods for the calculation of the rate at which manure can be applied to land, nor did it impose any restrictions on the timing and methods of application of manure (such as prohibiting the spreading of manure on snow-covered or saturated soil).

2. Without specific standards in the rule, how was EPA able to calculate the expected impact of the rule on the reduction of nutrients?
3. Without such standards, how can EPA be confident that the rule is adequately protective of the nation's waters?

The rule focuses on the management of nutrients. However, as noted above, EPA's preamble

¹² Under the proposed rule, metals would be reduced 62.7-66.6% and sediment loadings would be reduced by 18.8-30%. U.S. Environmental Protection Agency, *Economic and Environmental Benefit Analysis of Proposed Revisions to the National Pollutant Discharge Elimination System Regulation and the Effluent Guidelines for Concentrated Animal Feeding Operations*, January 2001, Exhibit 4-9a at 4-18 and Exhibit 4-10a at 4-20.

¹³ For large CAFO's, metals by 5% and sediment by 6% and medium CAFO's, 5% and 3%. 68 *Fed. Reg.* 7239 (February 12, 2003).

¹⁴ U.S. Environmental Protection Agency, *Environmental and Economic Benefit Analysis of Final Revisions to the National Pollutant Discharge Elimination System Regulation and the Effluent Guidelines for Concentrated Animal Feeding Operations*, December 2002, Exhibit 4-8 and Exhibit 4-9 at 4-16.

to the rule also recognizes the health risks posed by pathogens, as well as problems associated with antibiotics and pesticides. EPA reported that antibiotics used in animal feeding operations can be expected to appear in wastes, with the potential for the development of antibiotic-resistant pathogens; EPA further noted that there has been little research on pesticides in runoff from manured lands.¹⁵

4. What studies is the Federal government currently funding or conducting to evaluate the impacts of these constituents on the public's health and to assess whether the rule is adequately protective? Who is conducting any such studies?

With regard to the total reduction in wastes, EPA stated in the *Federal Register* notice accompanying the final rule: "As a result of today's action, EPA is regulating close to 60 percent of all manure generated by operations that confine animals."¹⁶ But, the notice does not contain data supporting this conclusion. In fact, the statement appears to be inconsistent with data previously supplied by EPA. The final rule establishes 1,000 animals as the basic threshold for which CAFO's would be subject to regulation.¹⁷ The proposal contained two "co-proposed" options to modify the existing definition. One would have dropped the threshold to 500 animals¹⁸ and the other retained the existing 3-tier numeric definition structure, with 1,000 animals as the basic threshold. (Both contained clarifications regarding when medium or small AFO's would be considered CAFO's.) In an options analysis for the proposed rule, applying the 1,000 animals threshold, EPA estimated that 49% of all CAFO manure would be subject to regulation.¹⁹

5. Please explain the bases for the difference in EPA's projections accompanying the proposed and the final rule utilizing the same regulatory

¹⁵ 68 *Fed. Reg.* 7236 (February 12, 2003).

¹⁶ 68 *Fed. Reg.* 7180 (February 12, 2003).

¹⁷ The definition of "large" depends upon the type of animals at the facility (for example, 1,000 beef cattle, 2,500 hogs, etc.) Medium sized CAFO's with direct discharges to waters are subject to regulations at certain sizes.

¹⁸ Those with fewer than 500 would have been designated as CAFO's based on certain characteristics.

¹⁹ This was based on USDA's estimate that CAFO's generate 128.2 billion pounds of manure annually. EPA looked at options and further estimated the impacts of lowering the threshold for regulation. At 500 animals, 64% of the total manure would be captured and, if further lowered to 300 animals, 72% of all CAFO manure produced annually captured. 66 *Fed. Reg.* 2986-2987 (January 12, 2001).

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Adequacy of plans for the management of nutrients.

The new rule requires a CAFO operator subject to the rule to develop by December 31, 2006, a nutrient management plan describing how the operator will meet permit requirements. The plan is to address a variety of issues including storage of manure and wastewater; handling of chemicals and other contaminants; controlling run-off of pollutants to waters of the United States; protocols for testing manure and applying it to the land; and the maintenance of records. As noted previously, the rule lacks specific standards, except for one “best management practice.” (Technical standards for waste application rates are to be set by the states.)²⁰ Furthermore, there is no requirement that the plan be made available to the public nor reviewed or approved by the permitting authority.

6. (A) What effect will the lack of approval and standards for the nutrient management plans have on EPA’s ability to conduct oversight?

(B) The rule specifically provides that if precipitation-related discharges occur from land application areas where the CAFO applied manure or process wastewater in accordance with its plan, the discharge will be considered an agricultural stormwater discharge exempt from the Clean Water Act.²¹ What does this mean for the ability of the states and the EPA to take action against a CAFO when pollution or a fish kills occurs as a result of a precipitation-related discharge from a land application area?

Groundwater discharges.

7. EPA did not adopt a provision from the proposed rule to require zero discharge of waste to ground water beneath the production area where there exists a direct hydrologic connection between surface water and ground water.

(A) Why did EPA make this decision?

(B) Is EPA considering alternative approaches to address the problems resulting from such waste discharges? If so, what?

(C) Identify the instances in which EPA has taken or ordered corrective action because of contamination resulting from discharges of animal wastes to groundwater.

“Co-permitting.”

²⁰ 68 *Fed. Reg.* 7209 (February 12, 2003).

²¹ 68 *Fed. Reg.* 7267-7268 (February 12, 2003).

In response to changes in the industry, EPA proposed that, in addition to the CAFO itself, those determined to be “operators” because they exercise substantial operational control over a CAFO must apply for a National Pollutant Discharge Elimination System (NPDES)²² permit. In its proposal, EPA was concerned about placing responsibility for ensuring proper manure disposal and management of the site on the appropriate entities. Under production contracts, a business other than the feedlot where the animals are raised and housed, such as a processing firm, may own the animals and exercise substantial control over the operations of the feedlot, including decisions on the number of animals at a site and how manure and waste is to be managed.

8. The “co-permitting” requirement was not adopted in the final rule. Why not?

Unregulated, off site wastes.

Large CAFO’s are required to keep records related to off-site transfer of manure, but the new regulations do not address what manure handlers are to do with the waste when it is transferred off-site.

9. Is EPA taking any action to address the problem of off-site management of such wastes? If so, please describe.

Implementation challenges.

10. The rule lacks requirements for groundwater and ambient water testing. How will EPA know that the nation’s waters are adequately protected by the rule?

The rule allows considerable discretion in the state run programs. A concern expressed by some is that without strong national requirements, the “playing field” will be uneven and CAFO’s

²² All point sources that discharge pollutants to waters of the United States must apply for an NPDES permit and may discharge pollutants only in compliance with the terms of that permit. Such permits must include any nationally established, technology based effluent limitations, and in the absence of a national standard, NPDES permit writers may establish technology based requirements determined on a case-by-case basis, based on their “best professional judgement.” Such permits normally include operating, record-keeping, and other requirements.

operating in states with more stringent requirements will be at a competitive disadvantage compared to other states.

11. What is your response to that concern?

EPA originally proposed changes to clarify and improve the effectiveness of the existing rule's definitions of what operations are covered by the rule,²³ noting that the definition of animal feeding operation "has proven to be difficult to implement and has led to some confusion,"²⁴ and that the conditions under which AFO's in the 300 to 1,000 size category are considered CAFO's have "proven to be difficult to interpret and implement."²⁵ However, EPA determined not to change the definition and the regulatory language on the criteria for determining or designating medium and small AFO's as CAFO's in the final rule due to comments that the proposed changes would not resolve the confusion.

12. What will EPA now do to address the confusion and difficulties in implementing the rule which EPA itself identified but has declined to clarify?

GAO reported that EPA and the states are ill prepared for implementation of the rule.²⁶ Even the new rule's scaled back requirements for CAFO's will increase the compliance workload for state and EPA regulators, both in the issuance of new permits and "catch-up" permits necessitated by the failure to issue all of the permits required under the old program.²⁷ However, GAO reports that the states are not equipped to implement the program, having not provided for additional staffing²⁸ to process permits, conduct required inspections, and take enforcement actions. Likewise, EPA has not provided for additional resources to carry out its oversight responsibilities. GAO also reported that officials were awaiting publication of the new rule to begin planning for its implementation.²⁹

²³ It proposed to modify the definition for what is an animal feeding operation (AFO) and the existing 3-tier definition of a Concentrated Animal Feeding Operation. Under the previous rule and the final rule, an AFO is a facility where animals are confined and fed for a total of 45 days in any 12-month period and crops are not sustained in the normal growing season over any portion of the facility. The final rule retained the status quo of a 3-tier structure and made no change to regulatory language on criteria for determining or designating medium and small AFO's as CAFO's. Under this structure, an AFO with 1,000 or more animal units is a CAFO; those with 300-999 AU's that have certain pollutant discharge characteristics are also defined as CAFO's; those with fewer than 300 AU's may be designated a CAFO under certain circumstances.

²⁴ 66 *Fed. Reg.* 3004 (January 12, 2001).

²⁵ *Id.*

²⁶ GAO-03-285.

²⁷ *Id.*, at 3, 7 & 9.

²⁸ *Id.*, at 13.

²⁹ *Id.*

13. Now that the rule has been published, what is EPA doing to effectively implement the rule?

(A) Has EPA completed the “comprehensive national plan that ensures that the regulations are aggressively implemented”³⁰ it promised in response to the GAO report? If so, please submit a copy. If not, when will the plan be completed?

14. What additional resources and staffing has EPA requested to implement the revised CAFO program?

15. According to EPA, fewer than 4,500 NPDES permits for CAFO’s were issued under the previous program.³¹ GAO reported that EPA believes about 4,000 smaller operations may threaten water quality and should have been permitted³² and identified other deficiencies in the issuance of permits by the states.³³

(A) Since March 1998, when CAFO enforcement was identified by EPA as a high priority, how many NPDES permits have EPA and the states issued to CAFO’s?

(B) What specific steps will EPA now take to ensure that those operations which should have received NPDES permits obtain their permits?

(C) What specific steps will EPA take to ensure that the estimated 11,000 facilities covered by the new regulatory program will apply for and be issued permits?

16. (A) Since March 1998, how many inspections of CAFO’s have EPA and the states conducted?

(B) Under EPA’s implementation plan, how many inspections will be conducted for each of the next three years?

17. GAO also reported: “EPA’s limited oversight of the states has contributed to inadequate implementation by some authorized states.”³⁴

³⁰ *Id.*, at 20.

³¹ In fact, according to the *Development Document* accompanying the final rule, most sources estimate that only 4,100 covered operations currently have NPDES permits. U.S. Environmental Protection Agency, *Development Document for the Final Revisions to the National Pollutant Discharge Elimination System Regulation and the Effluent Guidelines for Concentrated Animal Feeding Operations*, December 2002, at 9-12.

³² GAO-03-285, at 7.

³³ *Id.*, at 7-10.

³⁴ *Id.*, at 3.

(A) What actions are you taking to help the states implement this program and improve oversight of the states?

(B) When there are problems with a state program, what corrective actions are available to EPA and what action will it take?

18. (A) For each of the last 5 years, how much grant money has been provided to the states in accordance with Section 106 of the Clean Water Act?

(B) Of that, how much was devoted to the NPDES program for CAFO's?

Contribution to Meeting Clean Water Goals:

The 1997 – 2002 *EPA Strategic Plan* establishes a goal of clean and safe water for all Americans.³⁵ Updated in September 2000, the plan provided that by 2005 it would increase by 175 the number of watersheds where 80 percent or more of assessed waters meet water quality

³⁵ U.S. Environmental Protection Agency, *EPA Strategic Plan*, September 1997, at 19.

standards and reduce pollutant loadings from key point and nonpoint sources by at least 11 percent from 1992 levels.³⁶

19. (A) What contribution will this new rule make to meeting these goals?

(B) What progress has EPA made to date in meeting these goals?

I look forward to receiving your response to these questions about this important program by May 6, 2003.

Sincerely yours,

Joseph I. Lieberman
Ranking Member

JIL:kjs

³⁶ U. S. Environmental Protection Agency, *Strategic Plan*, September 2000, at 20.