

EPA AND STATE FAILURES TO REGULATE CAFOs UNDER FEDERAL ENVIRONMENTAL LAWS

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I. INTRODUCTION

A. Over the last several decades, agriculture has changed dramatically. Small farms have increasingly been replaced by industrial-sized facilities that confine thousands, or even millions, of animals in small areas (concentrated animal feeding operations or CAFOs). Agricultural operations produce an estimated 500 million tons of manure every year – three times the amount of waste the human population of the U.S. produces. See 68 Fed. Reg. 7176, 7180 (2003). Unlike human waste, however, livestock waste is not treated. Rather, it is stored in manure pits or “lagoons” and spread onto land.

B. Some large animal confinements release enormous quantities of toxic chemicals, including ammonia and hydrogen sulfide, from decomposing manure– comparable to pollution from the nation’s largest manufacturing plants. For example, Threemile Canyon Farms in Boardman, Oregon, reported that its 52,300 dairy cow operation emits 15,500 pounds of ammonia per day, more than 5,675,000 pounds per year. See Letter from Tom Lindley on behalf of Threemile Canyon Farms to EPA Region X, April 18, 2005. That is 75,000 pounds more than the nation’s number one manufacturing source of ammonia air pollution according to the 2003 Toxics Release Inventory.

C. Agricultural workers experience serious health effects from CAFO air emissions, including acute and chronic respiratory disease, sinusitis, acute and chronic bronchitis, decline in lung function, respiratory impairment, and even premature mortality. Iowa State University and The University of Iowa Study Group, *Iowa Concentrated Animal Feeding Operations Air Quality Study*, at 121 (Feb. 2002). Similarly, residents living near large-scale animal factories suffer from respiratory problems, headaches, runny noses, sore throats, excessive coughing, diarrhea, burning eyes, depression, and fatigue. Steve Wing and Susanne Wolf, “Intensive Livestock Operations, Health, and Quality of Life Along Eastern North Carolina Residents,” *Environmental Health Perspectives*, Vol. 108, No. 3, (March 2000); Kendall Thu, et. al, “A Control Study of the Physical and Mental Health of Residents Living Near a Large-Scale Swine Operation,” *Journal of Agricultural Safety and Health*, 3(1):13-26 (1997), p. 1-11; Susan Schiffman, et al., “The Effect of Environmental Odors Emanating From Commercial Swine Operations on the Mood of Nearby Residents,” *Brain Research Bulletin*, Vol. 37, No. 4, 369-75 (1995).

D. These operations also impair water quality in the nation’s rivers and lakes when manure overflows from storage lagoons or when manure is over-applied to land. For example, in 1995, approximately 25 million gallons of manure were discharged from a single hog operation in North Carolina. EPA, Environmental Assessment of Proposed

Revisions to the National Pollutant Discharge Elimination System Regulation and the Effluent Guidelines for Concentrated Animal Feeding Operations, EPA-821-B-01-001 at 2-17 (2001). Similarly, discharges of thousands of gallons of animal waste have been reported in Iowa, Illinois, Minnesota, Missouri, Ohio and New York. *Id.* at 2-18; see also The New York Times, *How to Poison a River*, (Aug. 19, 2005) (commenting on a 3 million gallon spill from a 3,000 head dairy in New York). These discharges wreak havoc on the receiving waters, often killing hundreds of thousands of fish per event. *Id.*

E. Leaking animal waste storage lagoons threaten human health by contaminating groundwater used for drinking water supplies. Nitrate levels above 10 mg/l in drinking water increase the risk of methemoglobinemia, or “blue baby syndrome,” which can cause developmental deficiencies and deaths in infants. U.S. EPA, The Report of the EPA/State Feedlot Workgroup, Office of Wastewater Enforcement and Compliance, September 1993. High nitrate levels in drinking water near feedlots has also been linked to spontaneous abortions in humans. “Spontaneous Abortions Possibly Related to Ingestion of Nitrate-Contaminated Well Water-LaGrange County, Indiana 1991-1994,” *Morbidity and Mortality Weekly*, Report 26, Centers for Disease Control (July 5, 1996) pp. 569-71.

F. The pathogenic microbes in animal waste can also infect people. Water contaminated by animal manure contributes to human diseases such as acute gastroenteritis, fever, kidney failure, and even death. U.S. Environmental Protection Agency, “California’s Dairy Quality Assurance Program, Fact Sheet” (September 1999), p. 2. Moreover, the practice of feeding huge quantities of antibiotics to animals in subtherapeutic doses to promote growth and compensate for crowded conditions has contributed to the rise of bacteria resistant to antibiotics, making it more difficult to treat human diseases. M. Mellon et al., *Hogging It – Estimating Antimicrobial Abuse in Livestock*, Union of Concerned Scientists, January 2001.

G. Despite these documented environmental and human health harms from CAFO pollution, the industry and its allies have been able to emasculate government protection of its citizens at every level. Local governments have been stripped of control in many communities, preventing them from passing zoning or public health ordinances to address CAFO pollution. State and federal permitting and enforcement activity is nonexistent or weak, and pending legislation threatens to exempt CAFOs from federal laws that protect the environment and public health. This outline focuses primarily on EPA and state failures to regulate CAFOs under our federal environmental laws.

II. OUR FEDERAL LAWS ARE UNDER ATTACK AND ARE NOT BEING ENFORCED AGAINST CAFOs

A. Clean Water Act

1. Although the Clean Water Act (CWA) has required large livestock operations to obtain permits for more than 30 years, noncompliance has been widespread. In 2001,

EPA estimated that at least 13,000 concentrated animal feeding operations were required to have Clean Water Act permits, but EPA and States had issued just 2,520 permits. 66 Fed. Reg. 2960, 2968 (2001); see also United States General Accounting Office, *Livestock Agriculture: Increased EPA Oversight Will Improve Environmental Program for Concentrated Animal Feeding Operations*, GAO-03-285 (Jan. 2003), at 7 (estimating that approximately 11,500 facilities should be permitted but only 4,500 actually have permits). Some of the states with the highest numbers of CAFOs have permitted the fewest numbers of CAFOs under the CWA. For example, Arkansas has only issued permits to 5% of its 2,110 CAFOs, and Iowa has only issued NPDES permits to 2% of its 1,859 CAFOs. EPA, *CAFO Rule Implementation Status: National Summary* (Feb. 28, 2005). In spite of this widespread noncompliance, EPA recently issued a proposed Clean Water Act regulation that would result in 25% fewer operations being permitted under the Clean Water Act than under its previous 2003 regulation. 71 Fed. Reg. 37744, 37774 (2006).

2. EPA CWA enforcement against CAFOs is also almost nonexistent. In the past five years, EPA has only referred one case to the Department of Justice for prosecution. EPA databases also reveal that there are only two administrative actions pending against CAFOs. *FOIA Response from Office of Enforcement and Compliance Assurance* (Sept. 8, 2006). State enforcement of the CWA against CAFOs is also abysmal. See e.g., Environmental Integrity Project, *Threatening Iowa's Future: Iowa's Failure to Implement and Enforce the Clean Water Act for Livestock Operations* (May 2004).

B. Clean Air Act (CAA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) and Emergency, Planning and Community Right-to-Know Act (EPCRA)

1. The CAA is intended to prevent and control air pollution. EPCRA and CERCLA are federal statutes that require the reporting and clean-up of hazardous substances whether they are released to land, water or air. Over the past five years, EPA has declined to enforce these statutes against CAFOs. Instead, they negotiated an administrative consent agreement (ACO) with the industry. Pursuant to this Agreement, EPA offered every animal feeding operation in the country an opportunity to voluntarily sign the ACO which gives participating operations immunity from past and future violations under the Clean Air Act, CERCLA and EPCRA in exchange for monitoring at a limited number of facilities and payment of a small fine. See 70 Fed. Reg. 4958, 4958-4960 (Jan. 31, 2005).

2. On August 21, 2006, the Environmental Appeals Board (EAB) approved the last batch of ACOs. EAB ratified a total of 2,568 Agreements, representing 1,856 swine, 468 dairy, 204 egg-laying, and 40 broiler chicken operations. These 2,568 Agreements cover 6,267 farms. EPA expects to commence monitoring early next year. After a two year monitoring study is concluded, EPA will evaluate the data and publish emission-estimating methods for animal feeding operations so that they can estimate their emissions and determine compliance with air pollution laws.

3. Several groups filed a lawsuit against EPA on May 27, 2005 in the D.C. Circuit Court of Appeals challenging EPA's Air Compliance Agreement. Some of the groups chief concerns are that: (1) the air monitoring is scientifically unsound (including being inconsistent with National Academy of Sciences recommendations), and lacks independent oversight; (2) the Agreement implies preclusion of citizen and state enforcement, and purports to provide amnesty from state and local law; (3) the Agreement lacks firm deadlines upon which the amnesty period terminates.

4. No CAFO has ever obtained a Clean Air Act permit, and states and EPA continue to use the ACO as an excuse to do nothing. However, a citizen suit will force California to start issuing CAA permits to CAFOs soon.

C. Pending Legislation: Over the past several years, a handful of city and state governments have used CERCLA to respond to livestock pollution of drinking water supplies. These actions seek to ensure that those responsible for causing pollution of water supplies---not downstream drinking water utilities or other water users---assume responsibility for the damage that they have caused. CERCLA provides the legal tools to uphold the principle that polluters should pay for damages and clean-up. There have also been two citizen suits brought against CAFOs for failing to report hazardous quantities of ammonia under CERCLA and EPCRA.

1. In response to these lawsuits, Senator Craig from Idaho has attempted to attach riders to various appropriations legislation over the past several years that would exempt CAFOs from CERCLA and EPCRA. More recently, Rep. Hall from Texas introduced a bill in the House (H.R. 4341) and Senator Domenici introduced a companion bill in the Senate (S.3681) that would exempt CAFOs from CERCLA and EPCRA.

2. If these bills pass, there will be two major consequences. First, federal, state and local governments will not be able to use CERCLA to respond to hazardous substances released from manure that threaten the environment, welfare or public health. Therefore, the financial burden for clean-up and the costs to restore natural resources would fall on the public rather than the polluter. Second, the amendments would eliminate the requirement to report hazardous releases of toxic chemicals associated with manure, including ammonia and hydrogen sulfide. This would prevent local, state and federal emergency responders from having critical information about potentially dangerous releases that could affect communities.

3. EPA has not taken a position on this legislation, although states and cities have written letters to Congress to protect their authorities under CERCLA and EPCRA to address hazardous releases from CAFOs.

4. On a parallel track with their legislative efforts, the National Chicken Council, National Turkey Federation, and U.S. Poultry and Egg Association submitted a petition to EPA on August 5, 2005 asking for an exemption from EPCRA and CERCLA ammonia reporting requirements for poultry operations. In response, EPA issued a notice of data availability asking the public to submit data by March 27, 2006 on the impact of

ammonia emissions on public health and the environment from poultry operations. See 70 Fed. Reg. 76452 (Dec. 27, 2005). EPA has not made a decision yet to grant or deny the Petition.

- Petitioners argue that (1) ammonia emissions from poultry operations are insufficient to justify the regulatory burden of CERCLA and EPCRA reporting requirements; (2) recent legal developments have complicated CERCLA and EPCRA reporting requirements for poultry operations; and (3) EPA should exempt poultry farms from reporting ammonia emissions under CERCLA and EPCRA, because they have the authority to do so; ammonia emissions from poultry houses pose little or no risk to public health; and emergency response to ammonia releases from poultry houses is infeasible, inappropriate and burdens the emergency response system and the regulated community.
- Commenters that oppose an exemption argue that (1) the Poultry Petition ignores the ever-growing body of science that suggests that ammonia emissions from poultry operations have human health or environmental impacts that warrant emergency response; (2) an exemption would be at odds with the goals of EPCRA and CERCLA by depriving the government of information it needs to protect natural resources, and by exposing the public to potentially dangerous quantities of hazardous pollutants; (3) an exemption would leave ammonia emissions from poultry operations virtually unregulated, because EPCRA and CERCLA are necessary to address emissions of ammonia that would not otherwise be regulated under federal permitting statute; (4) it would be arbitrary for EPA to grant the petition, because it would be a departure from EPA's past positions on reporting exemptions; and (5) exempting poultry operations from EPCRA and CERCLA reporting requirements would prevent EPA from gathering critical data and would hamper its ability to ensure that emissions do not exceed harmful levels.

III. REASONS FOR ROLLBACKS

A. Inappropriate Political Influence

1. Inside EPA Lobbyist—The Bush Administration created a new position called the Agricultural Advisor to the Administrator of the Environmental Protection Agency. The current Agricultural Advisor came to EPA after a 25 year career with the Illinois Farm Bureau where he was the Executive Assistant to the President and formerly director of public policy and director of national legislation. This kind of industry access to the Administrator seems unprecedented, and I am surprised that other industries have not followed suit and demanded similar positions.

2. USDA Gatekeeper--By legislative mandate in 1996, the Natural Resources Conservation Service created the Agricultural Air Quality Task Force (AAQTF). The

AAQTF is charged with advising the Secretary of USDA on agricultural air quality issues. USDA also has a Memorandum of Understanding with EPA to ensure that EPA seeks the advice of USDA on agricultural air quality issues. At the first meeting in 1997, USDA Secretary Glickman “cautioned the attendees that USDA was not asking the Task Force members to be advocates for any specific cause, only to share their expertise and ideas with the group.” See Meeting Minutes Summary (March 5, 1997). Despite these cautionary words, the Task Force has been dominated by people who represent industry interests and has spent much of its time advocating for either the deferral of regulation or exemptions from regulations. Most recently, the Task Force drafted legal definitions for regulatory purposes that effectively exempt CAFOs from air regulation. It is probably no coincidence that these legal definitions showed up verbatim in the proposed legislation to exempt CAFOs from EPCRA and CERCLA. To be fair, there has been some intellectual capital spent on VOC emissions and greenhouse gases, but there is clearly a disconnect between the mission and the activities of the Task Force. We need an honest brokering of science.

3. Congressional Pressure—Because EPA has failed to set strong national standards for CAFO regulation, state laws can vary widely. States that choose to be stringent are subject to political pressure. For example, Senators Inhofe and Chambliss recently sent a letter to Administrator Johnson implying that five of the six states in Region 5 have Clean Water Act requirements for CAFOs that are more stringent than the Act allows, and requested that EPA Headquarters “clarify” the law for the Regions and states. Letter from Saxby Chambliss, Chairman of the Senate Committee on Agriculture, Nutrition and Forestry and James Inhofe, Chairman of the Senate Committee on Environment and Public Works to Stephen Johnson, Administrator of U.S.EPA (March 3, 2006). As a result of this kind of pressure, I have been told by Region 5 staff that they were directed to back off of CAFO enforcement.

B. Lack of EPA Oversight

1. EPA has the option to authorize states to implement and enforce federal environmental laws against sources of pollution, including animal feeding operations, provided that the states have the proper legal authority and adequate resources. 33 U.S.C. § 1342 (b) (2003). Once a state is authorized to implement a federal law, it assumes the day-to-day responsibilities of running the federal program. However, our laws mandate an oversight function for EPA to ensure that state programs are in conformity with federal requirements.

2. EPA’s lack of oversight has contributed to the inconsistent and inadequate implementation of federal CAFO programs by authorized states. For example, GAO found that eleven authorized states with more than 1,000 large animal feeding operations do not properly issue NPDES permits and attributed these failures, in part, to a lack of EPA oversight. United States General Accounting Office, *Livestock Agriculture: Increased EPA Oversight Will Improve Environmental Program for Concentrated Animal Feeding Operations*, GAO-03-285 (Jan. 2003), at 3.

C. Lack of Funding

1. State Cuts: State permitting and enforcement of the Clean Water Act provisions has been woefully inadequate, in part, due to a lack of resources. In general, state agencies are receiving less than half of the resources they need to fully implement the Clean Water Act permitting program for all sources. Clifford Rechtschaffen, *Enforcing the Clean Water Act in the Twenty-First Century: Harnessing the Power of the Public Spotlight*, Center for Progressive Regulation White Paper (Oct. 2004), at 7; see also Environmental Law & Policy Center, *Illinois Water Quality and the Clean Water Act* (Oct. 2003), at 13 (noting that the Illinois Environmental Protection Agency identified over \$27 million in funding needed to administer the CWA permitting program, compared to the \$13.5 million in current resources.). Even states with high numbers of animal feeding operations have very few resources dedicated to CAFO regulation. For example, Iowa has the highest number of hog and egg-laying operations in the nation. Yet, in 2004, the Iowa Department of Natural Resources was regulating an estimated 3,500 facilities with only 27 full-time equivalent positions devoted to inspections, permitting and enforcement of CAFOs. Twenty-one of these positions were field staff who inspected the facilities and reviewed state manure management plans. About five people were responsible for issuing state and federal permits, and the majority of the enforcement work fell on just one attorney. Not surprisingly, very few CAFOs (and no confinement operations) are operating under Clean Water Act permits in Iowa. See Environmental Integrity Project, *Threatening Iowa's Future: Iowa's Failure to Implement and Enforce the Clean Water Act for Livestock Operations* (May 2004).

2. Federal Cuts: In general, EPA has also had its enforcement resources stretched and cut. From 2001-2003, EPA's inspection and enforcement staff decreased by over 12%. *Enforcing the Clean Water Act in the Twenty-First Century: Harnessing the Power of the Public Spotlight*, Center for Progressive Regulation White Paper (Oct. 2004), at 9. Since Sept 11, many staff have been reassigned to help with Homeland Security investigations, and Congress has required EPA to pay cost-of-living allowances without corresponding budget increases. Id.; see also Joel Mintz, "Treading Water:" A Preliminary Assessment of EPA Enforcement During the Bush II Administration, 34 ELR 10933 (2004). EPA's response to some of these pressures has been to diminish the size of their staff by attrition or to use money otherwise earmarked for travel, technical support etc. to pay for salaries. Id.

These budget cuts do not necessarily explain the decline in CAFO cases, however. EPA has claimed in the past that the overall decline in Clean Water Act enforcement actions has been compensated for by a diversion of their resources to enforce against wet weather discharge violations (i.e., combined sewer overflows, sanitary sewer overflows, stormwater discharges, and CAFOs). In fact, full-time equivalent positions (FTEs) increased 59 percent from FY 1999 to FY 2003, while those addressing non-wet weather programs decreased by 36 percent. During the same period, however, the annual number of enforcement actions against CAFOs declined 52 percent, dropping from an average of 67.0 (FYs 1999-2000) to 32.3 (FYs 2001-2003). Orders carrying penalties declined 61 percent, falling from an average 27.5 (FYs 1999-2000) to 10.7 (FYs 2001-2003). U.S.

EPA Office of the Inspector General, “Congressional Request Regarding EPA Clean Water Enforcement Actions” Report No. 2005-S-00001 (October 18, 2004), available at <http://www.epa.gov/oig/reports/2005/20041018-2005-S-00001.pdf>.

IV. THOUGHTS TO HELP FORMULATE SOLUTIONS

A. Strong Federal Regulations Needed to Level the Playing Field/Prevent Race to the Bottom Among States

Responsibility for most enforcement activity has been delegated to state agencies that also issue and review the federal permits that are supposed to limit pollution from animal feedlots, and thousands of other large sources. Not surprisingly, states vary widely in both the competence and the philosophy that they bring to bear on these important responsibilities. In practice, that means that violators can flout federal environmental law in some states without fear of penalty, or having to worry that their violations will be detected at all. This divergence between states is one of the greatest source of inconsistency in the enforcement of federal law – if we want to provide law abiding companies with a level playing field, this problem needs to be addressed head on. Although we will never achieve perfection, we need to do our best to provide both the regulated industry and the public with a level playing field. Although there are no silver bullets, there are some actions that could help to improve the consistency of environmental enforcement.

- Set strong minimum federal standards. While federal laws allow states to have permitting requirements that are more stringent than federal law (but not less), many states have laws that prevent them from being more restrictive. Therefore, EPA should make the federal “floor” as protective as possible to prevent a race to the bottom among states that cannot be more stringent or do not have the political will to protect their waterways from CAFO pollution.
- Both EPA and state agencies are understaffed relative to their workload, which means that some of the largest facilities can go years without ever seeing an inspector. Permit fees provide a source of revenue that can be more reliable than annual appropriations, and both Congress and state legislatures should assess whether these are sufficient to meet program needs. The Clean Air Act, for example, mandates that EPA and State authorities assess fees to cover the costs of administering and enforcing the Title V permit program. Other permitting statutes should mandate fees to cover the costs of implementing and enforcing the federal programs as well. Without Congressional action, states may not be able to impose fees. The Iowa legislature recently approved CWA permit fees for all sources, except for CAFOs.
- EPA and states should use existing statutory authority to make AFOs apply for permits or demonstrate that they do not pollute in violation of federal law. For example, both the EPA has existing authority under the Clean Air Act to require any person who owns or operates an emissions source to (1) install and maintain

monitoring equipment; (2) sample emissions; (3) submit compliance certifications; and (4) provide any other information the agency may reasonably require. 42 U.S.C. § 7414(a)(1)(C)-(G). EPA ignores this authority and instead seeks to use the Air Compliance Agreement to obtain the same information that EPA can require under 42 U.S.C. § 7414(a)(1). The CWA provides similar authority, but EPA ignores it and proposes to set up a self-regulatory scheme in its latest CWA regulations by allowing CAFOs to decide whether or not they need to apply for permits. Requiring CAFOs to certify that they do not pollute on a regular basis will force CAFOs to eliminate the sources of discharges or apply for permits. It will also ease the burden on states that otherwise do not have the resources to find and inspect each CAFO. Finally, it will force states that have traditionally taken a “hands off” approach to permit CAFOs.

- Unfortunately, there is no substitute for regular oversight of state programs which is EPA’s job.

B. Collect Data/Expand Data Systems/Make Data Transparent and Available

Both the IG and the GAO have recommended that major sources of pollution be required to use state of the art monitoring to track air emissions, instead of the inaccurate accounting still in use at many facilities, which amounts to little more than guesswork. CAFOs have been able to avoid any meaningful monitoring of pollution releases by hiding behind scientific uncertainty. While we have baseline data to show that CAFOs are significant sources of pollution (e.g., agriculture is the number one cause of water quality impairment; CAFOs are responsible for 73% of ammonia emissions nationwide, etc.), we do not have enough *source* data.

EPA has shown no interest in collecting such data. For example, in 2001 EPA had data from Buckeye Egg (now Ohio Fresh Eggs) that suggested that *all* large layer operations are likely major sources of particulate matter and should be required to apply for Clean Air Act permits and install pollution controls. *See Letter to Bill Glass from Kevin Vuilleumier Regarding June 4-8 Emission Testing* (December 11, 2001) (finding that the Marseilles facility may emit more than 700 tons of particulate matter per year, well above the 250 ton regulatory threshold). Based on the air emissions data collected from Buckeye Egg, EPA should have immediately used its existing statutory authority to demand emissions monitoring data from all operations that house 1.5 million layers or more. However, in the face of this data, EPA retreated from its Clean Air Act investigations of CAFOs to negotiate the ACO. Even under its ACO, EPA proposes to monitor air emissions at only 17 facilities out of the 6,267 operations that are given immunity under the Agreement. This pace of monitoring hardly seems reasonable given that the health and environmental consequences of agricultural air pollution have grown more serious as CAFO facilities continue to expand in size.

In theory, EPA and states are tracking discharges to water, but EPA's data systems are outdated and virtually useless. EPA lacks data in its management systems on an estimated 65 percent of discharges from concentrated animal feeding operations.

Office of Inspector General, USEPA, *Water Enforcement: State Enforcement of Clean Water Act Discharges Can be More Effective* [2001-P-00013] 19-21, <http://www.epa.gov/oigearth/reports/2001/finalenfor.pdf>. Data modernization has been EPA's stated goal for years, but the combination of inertia and entrenched bureaucracy has held progress to a snail's pace--another problem that may only be fixed by Congressional mandate. Without access to data, citizens and regulators are unable to enforce the requirements of federal law. Transparency also helps to drive compliance. See, e.g., Clifford Rechtschaffen, *Enforcing the Clean Water Act in the Twenty-First Century: Harnessing the Power of the Public Spotlight*, Center for Progressive Regulation White Paper (Oct. 2004), at 11. (noting that mandatory disclosure of data will improve environmental performance...for example, "[f]acilities subject to the [TRI] program have reported a remarkable 54.5 percent decline in their releases of covered chemicals.").

C. CAFOs Should Not Have it Both Ways—Monitor or Moratorium

The industry argues that there is not enough data to support air regulation, or that testing and pollution control technology is too expensive. At the same, CAFOs have been allowed to build or expand large facilities with little forethought to the environmental or public health consequences. Industry should not have it both ways. If the industry cannot measure and control its pollution, then there should be a moratorium on the expansion or building of new facilities until they can. The concept of a moratorium is not new. The risks to public health from CAFO pollution led the American Public Health Association to call for a moratorium on new concentrated animal feeding operations "until scientific data on the attendant risks to public health have been collected and uncertainties resolved." American Public Health Association, *Precautionary Moratorium on New Concentrated Animal Feed Operations*, 2003-7, <http://www.apha.org/legislative/policy/2003/2003-007.pdf>. The Michigan State Medical Society, the Canadian Medical Association, as well as local boards of health, have also called for moratoria on new concentrated animal feeding operation construction.

Scientific uncertainty should not be an excuse to do nothing. Other industries, including big sources of pollution like power plants, have poorly rated emissions factors but they still have to estimate, and continuously measure, their air emissions. Moreover, other countries have done what industry and its allies have claimed is impossible. Somehow they have managed to measure emissions and require pollution controls with the same science that we have—there is a reason that Dutch dairies are flooding the Midwest. Because of our lack of regulation, we are at risk of becoming the world's dumping ground for CAFO pollution.

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