

March 27, 2008

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S. William Becker

Superfund Docket  
Docket ID No. EPA-HQ-SFUND-2007-0469  
U.S. Environmental Protection Agency  
Mailcode: 2822T  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Dear Sir/Madam:

On behalf of the National Association of Clean Air Agencies (NACAA), thank you for this opportunity to comment on the proposed CERCLA/EPCRA Administrative Reporting Exemption for Air Releases of Hazardous Substances from Animal Waste, published in the *Federal Register* on December 28, 2007 (72 *Federal Register* 73700). NACAA is the national association of air pollution control agencies in 53 states and territories and over 165 metropolitan areas across the country.

NACAA opposes this rule for several reasons and urges that EPA rescind it in its entirety. Before addressing these reasons, however, it is important to first provide some background information about the industry.

The animal farming industry in the U.S. is very large, both in terms of numbers of animals and revenue, and should be subject to the same kinds of environmental requirements as any other major sector of our economy. There are over 100 million head of cattle and calves in the U.S.,<sup>1</sup> and cash receipts for this industry in 2006 totaled \$49.1 billion.<sup>2</sup> The U.S. swine industry is also substantial—more than 60 million head of hogs and pigs,<sup>3</sup> amounting to a \$14.1 billion business in 2006.<sup>4</sup> For poultry, the numbers of animals are even more impressive: almost 350 million layer hens and more than 175 million chicks for meat

<sup>1</sup> National Agricultural Statistics Service (NASS), Agricultural Statistics Board, U.S. Department of Agriculture (USDA), "Cattle," (July 20, 2007), at 1 (available at <http://usda.mannlib.cornell.edu/usda/current/Catt/Catt-07-20-2007.pdf>).

<sup>2</sup> NASS, Agricultural Statistics Board, USDA, "Meat Animal Production, Disposition, and Income: 2006 Summary," (April 2007) at 1 (available at <http://usda.mannlib.cornell.edu/usda/current/MeatAnimPr/MeatAnimPr-04-27-2007.pdf>).

<sup>3</sup> NASS, Agricultural Statistics Board, USDA, "Quarterly Hogs and Pigs," (June 29, 2007) at 1 (available at <http://usda.mannlib.cornell.edu/usda/current/HogsPigs/HogsPigs-06-29-2007.pdf>).

<sup>4</sup> "Meat Animal Production, Disposition, and Income: 2006 Summary," *supra* note 2 at 1.

production (known as “broilers”),<sup>5</sup> with the total farm value of U.S. poultry production exceeding \$20 billion a year.<sup>6</sup>

This industry has also evolved, with fewer larger operations replacing more numerous smaller ones, even as production has grown dramatically. The broiler industry is a good example. According to the U.S. Department of Agriculture, in 1934, there were 11,405 facilities that hatched all chickens in the U.S. Those hatcheries had the capacity to incubate 276 million eggs at one time for an average capacity of 24,224 eggs. In 2001, there were 323 chicken hatcheries, with an incubator capacity of 862 million eggs; the average incubator capacity of a hatchery is 2.7 million eggs.<sup>7</sup>

NACAA’s primary concern is with these large industrial-scale Consolidated Animal Feeding Operations (CAFOs), those that house hundreds or thousands of animals. As the term CAFO suggests, most of these animals are housed in confined facilities: broiler houses usually handle between 20,000 and 30,000 birds per house<sup>8</sup> and a swine finishing building can typically house 1200 to 2400 pigs each. It is these large CAFOs, not small family farms, which produce thousands of tons of manure and release air pollutants in levels of potential concern. The largest CAFOs house thousands of dairy cows or beef cattle, tens of thousands of swine and hundreds of thousands—even millions—of chickens.<sup>9</sup>

According to EPA, these facilities generate approximately 500 million tons of waste each year, three times more raw waste than is generated yearly by people in the U.S.<sup>10</sup>

Clearly, manure is a major source of air pollution emissions. For example, CAFO ammonia emissions represent *half* the U.S. ammonia emissions inventory in this country.<sup>11</sup> In California, livestock ammonia emissions contribute 38 percent of the state’s entire inventory of ammonia emissions. In San Joaquin Valley, 70 percent of the area’s ammonia emissions are from livestock.

Emissions of ammonia from the largest CAFOs approach and, in some instances, even dwarf those of other industrial facilities. Monitoring of Premium Standard Farms (PSF) conducted by EPA (under a settlement agreement) in 2004 shows that PSF releases 3 million pounds of ammonia annually from barns

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<sup>5</sup> NASS, Agricultural Statistics Board, USDA, “Chickens and Eggs: 2006 Summary,” (Feb. 2007) at 1 (available at <http://usda.mannlib.cornell.edu/usda/current/ChickEgg/ChickEgg-02-27-2007.pdf>) and NASS, Agricultural Statistics Board, USDA, “Broiler Hatchery,” (Aug. 22, 2007) at 1 (available at <http://usda.mannlib.cornell.edu/usda/current/BroiHatc/BroiHatc-08-22-2007.pdf>).

<sup>6</sup> Economic Research Service, USDA “Poultry and Eggs: Background” website, accessed on Aug. 29, 2007, <http://www.ers.usda.gov/Briefing/Poultry/Background.htm>.

<sup>7</sup> NASS, Agricultural Statistics Board, USDA, “U.S. Broiler Industry Structure,” (Nov. 27, 2007) at 1 (available at <http://usda.mannlib.cornell.edu/reports/nassr/poultry/industry-structure/specpo02.pdf>).

<sup>8</sup> National Academy of Sciences, “Air Emissions from Animal Feeding Operations: Current Knowledge, Future Needs,” (2003) at pp. 37-38.

<sup>9</sup> EPA’s definition of a CAFO is at 40 CFR Part 122 Appendix B.

<sup>10</sup> 68 *Federal Register* at pp. 7179-80.

<sup>11</sup> National Academy of Sciences report, *supra* note 8, at 51.

and lagoons at its Somerset facility, making it the fifth largest industrial emitter of ammonia in the country.<sup>12</sup> Threemile Canyon Farms in Boardman, Oregon, reported that its 52,300-dairy-cow operation emits 15,500 pounds of ammonia per day, totaling more than 5,675,000 pounds per year.<sup>13</sup> That is 75,000 pounds *more* than the nation's number one manufacturing source of ammonia air pollution (CF Industries of Donaldson, Louisiana).<sup>14</sup>

Accordingly, in light of the size and breadth of this industry, NACAA rejects EPA's assertion that the administrative reporting exemption in its proposed rule "is protective of human health and the environment..." In fact, air pollution emissions from CAFOs can cause substantial harm to human health and the environment. These harmful emissions include not only ammonia, but many other toxic pollutants, such as hydrogen sulfide, as well as particulate matter, including fine particulate matter (PM<sub>2.5</sub>). Human exposure to ammonia triggers respiratory problems, causes nasal and eye irritation and in large enough amounts can be fatal.<sup>15</sup> Ammonia also contributes directly to the formation of PM<sub>2.5</sub>, which causes severe health effects in humans, including death, heart attacks and increased severity of asthma attacks, as well as visibility impairment.<sup>16</sup> Hydrogen sulfide is a toxic air pollutant that can cause severe health effects, even death, at high concentrations of exposure.<sup>17</sup>

In Iowa, for example, the greatest number of air complaints the state receives concern emissions from land application of manure. In 2006, Iowa monitored 10 homes for ammonia and hydrogen sulfide emissions to assess the air emissions of CAFOs and recorded high ammonia emissions on a regular basis and high hydrogen sulfide emissions periodically.<sup>18</sup>

There have been equally disturbing accounts of health impacts in other areas of the country. Some have lead to premature mortality. As reported in the *Dayton Daily News*, "At least 24 people in the Midwest have died from inhaling hydrogen sulfide and methane from manure since the 1970s, including fifth-generation Michigan dairy farmer Carl Theuerkauf and four members of his family, who collapsed one by one in 1989 after breathing methane gas from a

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<sup>12</sup> Premium Standard Farms, *Air Emissions Monitoring Completion Report* (Nov. 17, 2004) and EPA, "Toxics Release Inventory" (2004), available at <http://www.epa.gov/triexplorer>.

<sup>13</sup> Letter from Tom Lindley on behalf of Threemile Canyon Farms to EPA Region X, April 18, 2005.

<sup>14</sup> U.S. EPA, Toxics Release Inventory, 2003, <http://www.epa.gov/triexplorer/>.

<sup>15</sup> Schiffman, S.S., et al., *Health Effects of Aerial Emissions from Animal Production and Waste Management Systems*, available at [http://www.cals.ncsu.edu/waste\\_mgt/natlcenter/summary.pdf](http://www.cals.ncsu.edu/waste_mgt/natlcenter/summary.pdf) and Agency for Toxic Substances and Disease Registry, "Public Health Statement for Ammonia" (September 2004), available at <http://www.atsdr.cdc.gov/toxprofiles/phs126.html#bookmark05>.

<sup>16</sup> EPA, "Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information," (OAQPS Staff Paper) (December 2005) (available at [http://www.epa.gov/ttn/naaqs/standards/pm/data/pmstaffpaper\\_20051221.pdf](http://www.epa.gov/ttn/naaqs/standards/pm/data/pmstaffpaper_20051221.pdf)).

<sup>17</sup> Agency for Toxic Substances and Disease Registry, "Public Health Statement for Hydrogen Sulfide" (July 2006), available at <http://www.atsdr.cdc.gov/toxprofiles/phs114.html>.

<sup>18</sup> Iowa Department of Natural Resources Ambient Air Monitoring Group, "Results of the Iowa DNR Animal Feeding Odor Study" (January 2006).

manure pit.”<sup>19</sup> More recently, in July, 2007, four members of a Shenandoah Valley dairy farming family and a hired hand died after breathing gas fumes in a manure pit.<sup>20</sup>

Accordingly, NACAA believes, for many reasons, it is extremely important that EPA continue to require the reporting of hazardous releases of toxic chemicals from animal waste at farms.

First, if the exemption is adopted, state and federal emergency responders would be prevented from having critical information about potentially dangerous releases that could affect communities.

Second, EPA or a state/local agency could not use CERCLA response authorities to respond to hazardous substances released from manure (e.g., investigations or clean-up) that threaten the environment, welfare or public health.

Third, EPA may be prevented or impeded from taking action, including issuing abatement orders, in situations where there is an imminent and substantial endangerment to the public health, welfare or environment.

Fourth, CAFOs would also be exempt from any natural resource damages that may result from a release of a hazardous substance, leaving the financial burden of any cleanup on the public.

Fifth, state and local air pollution control agencies would no longer have the benefit of air pollution information from these sources (e.g., to address health-based air quality standards), especially given the paucity of monitors in rural states. Until such time as the outcomes of the Air Compliance Agreement are realized, these reports may be the only source of information for people affected by excessive air emissions from CAFOs.

Sixth, this exemption also interferes with the Air Compliance Agreement EPA has negotiated with the CAFO industry. Farms electing to participate in this monitoring study, which began last spring, have already received a waiver from enforcement of CERCLA and EPCRA provisions for air emissions of hydrogen sulfide and ammonia. EPA negotiated agreements with thousands of farms from the swine, broiler, layer and dairy industries. It would be inappropriate for EPA now to provide a blanket exemption from reporting requirements for air pollution emissions from manure while data on this very subject are being collected.

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<sup>19</sup> Wagner and Sutherly, “The supersizing of America’s livestock farms,” *Dayton Daily News* (December 1, 2002).

<sup>20</sup> Bill Brubaker, “Four Family Members, Farmhand Killed by Gas Fumes in Methane Pit,” *The Washington Post*, B06 (July 4, 2007).

Finally, NACAA believes this exemption will create a disturbing precedent with respect to application of the Clean Air Act to controlling air emissions from manure, and likely for other sources regulated by the Clean Air Act.

In summary, the well-documented adverse health effects and substantial levels of air emissions from CAFOs – including ammonia and hydrogen sulfide – warrant application of environmental laws to these sources. It is exactly such sources that statutes such as the Clean Air Act, CERCLA and EPCRA are intended to address. CAFOs, like every other major industry in this country, should be expected, and required, to accept their obligations and comply in full with environmental laws. We do not believe a blanket exemption is warranted given the demonstrated health effects associated with ammonia and hydrogen sulfide, the amounts of manure produced by CAFOs and the usefulness of the data contained in CERCLA and EPCRA reports to state and local air agencies and the people living near these facilities.

Thank you for considering our comments. If you have any questions or seek additional information, feel free to contact either of us or S. William Becker, Executive Director of NACAA.

Sincerely,



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NACAA Co-President



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