

**Written Testimony of the
National Pork Producers Council**

On

**Impact of Federal Environmental Regulations
and Policies on American Farming
and Ranching Communities**

**Before the
Senate Environment and Public Works Committee**

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Introduction

In the mid-1990s, hog producers and the entire sector were at a crossroads. Many economic and market forces were at work that made it essential for the average hog operation to grow and become more specialized. This growth and specialization created tremendous business opportunities for young producers willing to take on these challenges, and the outlook for these producers and the sector were bright, with an important exception. The growth in the average size of the economically viable and sustainable hog operation and the construction of new facilities to take advantage of the new management strategies, technologies and benefits of specialization were creating new challenges for how hog producers were going to manage their manure to protect water quality. The industry was on a learning curve, and it faced serious resistance from those who were opposed to these changes for various reasons, including the mistakes that the industry made at that time in the operation of some of its facilities. The hog sector wasn't perfect, and producers knew it, and the industry needed to work on this if producers were to be responsible and good neighbors.

In 1997, NPPC President and Iowa hog farmer Glen Keppy summed this situation up as follows:

Agriculture is changing in ways my father and grandfather could not imagine. I am trying to adopt the new technologies and be proactive. Regulation is also increasing. I am required to go to manure management classes. I need a permit to haul a load of manure out to the field. My hog farm has undergone an odor audit. I am required to have an insecticide/pesticide license so that I can farm grain for my hog operation. I go to yearly classes for pork quality assurance. I am also on the planning and zoning commission of my county. Farmers today are facing many challenges. Urban sprawl is creeping out into agricultural areas. The public is watching farmers much more closely. Through state agencies and the Environmental Protection Agency (EPA), citizens are demanding cleaner and safer water, reduced soil erosion, pathogen-free

and residue-free foods. The goal of my farm is to meet these requirements and provide a wholesome and economical food product. ¹

These sentiments and the challenges Mr. Keppy needed to address led the pork industry to undertake a concerted effort to identify and establish the best production and management systems that were practical, economical and able to successfully and responsibly manage manure. The industry engaged in a detailed and organized process, working with non-governmental organizations, state agencies, U.S. EPA, USDA and others to study the best practices available to pork producers and to offer that as guidance to the industry for how producers should be operating. While there were many reasons that U.S. EPA decided to update the Clean Water Act (CWA) rule applicable to concentrated animal feeding operations (CAFOs), it is clear to NPPC that the work the industry did in the 1990s helped inform the agency's efforts and guided NPPC's work on that rule through the rulemaking process.

The upshot of all this is now a model for successful and responsible pork production and manure management that is also profitable and economically sound. This model includes housing animals in buildings to separate them from the elements and allow producers to prevent rainfall from contacting animals and their manure in the area where the animals are housed, sound manure storage facilities that provide considerable and reasonable protections from the elements, and have sufficient storage capacity to allow producers to make correct judgments about where, when and how much manure to be land applied to support crop production following sound agronomic principles, and the use of these principles when producers apply manure for crop production purposes.

This model is now reflected in the CAFO rule, which has served as a durable and sound regulatory foundation, reflecting and respecting the roles of state and federal agencies, on which the pork industry has been able to grow and thrive.

¹ "Emerging Issues in Public Policy: Highlights of the 1999 National Public Policy Education Conference"; St. Paul, Minnesota, September 19-21, 1999; Page 25; Farm Foundation, (<http://www.farmfoundation.org/pubs/emerging/99emergingissues.pdf>).

There is more, of course, to environmentally responsible hog farming than just manure management to protect water quality. But the industry's environmental systems start there, and where things go in the future must meet the same needs and imperatives that producers faced in the 1990s and have successfully addressed. These and other related matters are discussed in the testimony that follows.

Importance of U.S. Pork Production

The National Pork Producers Council (NPPC) is an association of 43 state pork producer organizations that serves as the global voice for the nation's pork producers. The U.S. pork industry represents a significant value-added activity in the agricultural economy and the overall U.S. economy. Nationwide, more than 60,000 pork producers marketed more than 118 million hogs in 2016, and those animals provided total cash receipts of nearly \$240 billion. Overall, an estimated \$23 billion of personal income and \$39 billion of gross national product are supported by the U.S. pork industry.

Iowa State University economists Daniel Otto, Lee Schulz and Mark Imerman estimate that the U.S. pork industry is directly responsible for the creation of more than 37,000 full-time equivalent pork producing jobs and generates about 128,000 jobs in the rest of agriculture. It is responsible for approximately 102,000 jobs in the manufacturing sector, mostly in the packing industry, and 65,000 jobs in professional services such as veterinarians, real estate agents and bankers. All told, the U.S. pork industry is responsible for nearly 550,000 mostly rural jobs in the United States.

U.S. pork producers today provide 25 billion pounds of safe, wholesome, and nutritious meat protein to consumers worldwide. U.S. exports of pork and pork products totaled 2.3 million metric tons – a record – valued at \$5.94 billion in 2016. That represented almost 26 percent of U.S. production, and those exports added more than \$50 to the value of each hog marketed. Each year, exports directly and significantly add to the bottom line of each U.S. pork producer. Exports also support approximately 110,000 jobs in the U.S. pork and allied industries.

Hog Farming and the Environment

Pork producers are deeply committed to responsibly managing their animals and the manure they produce to protect water and air quality. They are similarly committed to reducing the size of their environmental and natural resources footprint through the pursuit of efficiency and the goals of sustainable intensification, whereby producers are able to meet a growing world population's demand for more agricultural products with the smallest footprint possible. The evidence of this commitment is visibly tangible, in the engineering and physical design and operation of their swine housing and manure management systems. The performance of these systems has been documented and corroborated through an authoritative lifecycle assessment of the swine sector. Pork producers' swine housing and manure management systems are designed and operated for environmental success, and the public has substantial assurances that this is the case in the form of multiple state and federal environmental permitting and regulatory programs applicable to pork producers. Pork producers are understandably proud of their industry and believe it is a sound model for how they meet the continual and rapidly growing worldwide demand for animal proteins with the smallest footprint possible. These matters are discussed in additional detail below.

Our Production Systems are Engineered, Built and Operated for Environmental Success

There are several, sound animal husbandry reasons for why pork producers house their animals in buildings, protected from the elements, but one of the most important is the fact that it makes it much easier to economically manage manure to protect water quality.

The animal housing ensures that rain and storm water do not come in contact with the animals or the manure in the animal living areas, preventing polluted runoff from entering surface water. Similar engineering considerations govern how the manure is stored, for six or more months, to either prevent contact with rainfall or to contain all added rainfall. The six or more months of manure storage in these systems gives pork producers the ability to choose optimal times for the use of the manure as fertilizer in crop production, taking into account anticipated rainfall, soil moisture conditions, timing of crop production and other considerations.

While it might be possible for extraordinary weather events to overwhelm one of these systems, these storm events are exceedingly rare, and pork producers have options for managing the animals and the manure to prevent or minimize losses. The bottom line is that these pork production systems are explicitly designed, operated and maintained so that the manure can be used responsibly in crop production while ensuring that rainfall and storm water do not lead to polluted runoff containing manure.

Federal/State Environmental Regulatory Oversight of the Pork Sector

Many people presume that animal agriculture and pork production are not subject to substantial federal and state regulatory oversight. This is simply not the case; there is an interconnected system of federal and state regulatory oversight programs in place in every significant pork producing region in the country.

Undergirding this system is the explicit set of standards, guidelines and performance requirements for animal agriculture set in the federal Clean Water Act (CWA) rulemaking applicable to Concentrated Animal Feeding Operations (the CAFO Rule).

The federal CAFO Rule creates the expectation that:

1. Animal feeding operations are to be designed and operated to prevent manure, where it is being produced by animals and then stored for subsequent use, from fouling surface water quality.
2. When an animal producer uses their animals' manure as fertilizer in crop production, this use will be conducted according to sound agronomic and crop nutrient science, that appropriate conservation practices will be in use on the fields receiving the manure, and that the producer will keep records documenting all of this.

Failure to meet these expectations, when it leads to the release of manure, can result in substantial federal fines and other penalties. Producers are subject to these requirements with or without a formal CWA CAFO permit; those without such a permit are expected under the CAFO Rule to meet these standards no matter the amount of rainfall that may occur. Those with a permit are expected to meet the standards except in the event of a large rainfall event.

The regulatory oversight of pork production is not limited to the federal CAFO Rule. Hog farmers also are subject to extensive state permitting and oversight programs.² For example, each of the top 10 states in pork production in the United States has its own state permitting programs governing the siting, construction and operations of pork farms and the use of their manure in crop production. These state programs often require public notices of the applications for these permits. They also often involve regular inspections of operations and have active compliance and enforcement components.

Measurements of the Environmental Performance of the Modern Swine Sector

The pork sector, along with all of U.S. agriculture, was transformed after World War II through the adoption of equipment, technology, better genetics, better disease and pest control and a host of related developments. This transformation accelerated through the 1990s, when today's modern pork production systems came into use, with the attendant efficiencies and environmental benefits discussed above.

Pork producers have long thought, based on anecdotal observations, that the substantial gains made in efficiency and productivity by modern swine farming systems were leading to major improvements in the sector's environmental performance. Wanting more than anecdotal confirmation of the benefits of these systems, pork producers worked with third-party researchers to conduct a study of the changes in the pork sector between 1959 and 2009. The researchers looked at the 50-year changes in pork production's footprint at the farm level and how feed, water, energy and land use changed as the sector changed to produce pork more efficiently. The researchers found that, per pound of animal produced, feed use efficiency improved by 33 percent, water use was reduced by 41 percent, total land use was reduced by 59 percent and the carbon footprint was reduced by 35 percent. Over this 50-year period, while pork production had nearly doubled to help meet the growing demand for animal proteins in the United States and worldwide, pork producers had stabilized the sector's overall demand for resources.³

² A state-by-state compilation of environmental regulatory programs applicable to pork producers can be found here: <https://www.pork.org/environment/compliance-information-state/>.

³ See "A 50-Year Comparison of the Carbon Footprint and Resource Use of the US Swine Herd: 1959 – 2009", <https://www.pork.org/research/a-50-year-comparison-of-the-carbon-footprint-and-resource-use-of-the-us-swine-herd-1959-2009/>

To meet the demand for animal proteins over the next 30 years, animal and agricultural productivity must grow by 70 percent or more, according to the U.N.'s Food and Agriculture Organization. This intensification of production must be achieved sustainably to keep to a minimum the resource effects of meeting the unavoidable worldwide need for high-quality food for people. The 50-year study of the footprint of the pork sector points the way to achieving sustainable intensification of food production. These pork sector accomplishments have had the dual benefits of protecting the environment while improving the economics and profitability of U.S. pork operations. These are the key foundations of the modern understanding of environmental sustainability, and pork producers are proud of their operations' and the industry's performance in this area.

Federal Policy and Pork Production

NPPC and pork producers have a long history of working cooperatively with environmental regulators at the state and federal levels and are committed to federal environmental policies and programs if they are grounded in three primary principles:

1. That the environmental performance expectations for producers have a high probability of resulting in meaningful environmental improvements.
2. That the measures involved be practical and affordable.
3. That producers be given a realistic amount of time to adapt the measures and associated systems to their operations so they can continue to be profitable and successful.

NPPC believes these principles have served pork producers well and that the sector's record of adopting new and better animal housing and manure management and use systems is direct and ample evidence of the industry's past and ongoing commitment. So, too, is the investment pork producers made of approximately \$6 million of their own funds to support a U.S. EPA-supervised third-party National Air Emissions Monitoring Study (NAEMS) of the air emissions from swine operations and the enrollment of approximately 5,000 swine facilities in the Air Consent Agreements with U.S. EPA that made the work under NAEMS possible.

These principles also have led NPPC to oppose and fight environmental policies and programs that were based on unrealistic expectations or spurious outcomes or that were detrimental to modern pork production and had little or no relationship to environmental performance. NPPC continues to hold these principles, and with this perspective in mind, the organization offers the following observations on some of the major federal policy matters before the swine sector today.

CAFO Rule Implementation

As discussed in the introduction and reflected throughout this testimony, NPPC believes the CAFO Rule is generally a solid, tough-but-fair set of regulations. Its implementation, coupled with the corresponding state regulatory and permitting programs, can help the pork sector continue to responsibly manage the manure produced by its animals. NPPC welcomes the opportunity to work with U.S. EPA to jointly pursue this objective.

CERCLA-EPCRA Reporting; a Bad Policy Implemented for the Wrong Purpose

Federal requirements for the emergency reporting of ammonia and hydrogen sulfide emissions under the Emergency Planning and Community Right-to-Know Act (EPCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) have been the subject of much confusion and controversy for the animal agriculture community since the late 1990s. The aforementioned NAEMS and the related Air Consent Agreements, discussed below in more detail, were part of the industry's response to this confusion and controversy, working with U.S. EPA.

Animal agriculture never has agreed that the relatively continuous and stable emissions of these substances from manure constituted the type of acute emergency or crisis that CERCLA or EPCRA were intended to address. Indeed, EPCRA includes an explicit exclusion from reporting emissions from substances that are part of a routine agricultural operation. Livestock agriculture never has understood why this would not include manure production and its emissions, which have been a routine part of agricultural operations since the dawn of civilization when humans first domesticated animals and started to cultivate grain. In the United States, the modern manure management collection and storage systems in place today are direct descendants of the “dung repository” that George Washington built

next to his home and that were the centerpiece of his successful agricultural operations at Mount Vernon.

When some producers first attempted to report ammonia emissions under EPCRA following a 2008 rulemaking on this matter, if their submissions to state and local emergency response authorities were able to get through (many were not because of busy phone lines, unanswered phone lines or fax machines running out of paper), they were met with disbelief and confusion and statements such as “Why are you submitting this to us? What are we to do with this information?” by the local authorities receiving them. Many refused to accept the reports. In some states, emergency responders were dispatched to farms thinking there was a chemical explosion. In Illinois, farmers were told that there was no rule requiring reporting and that it was merely an Internet hoax. EPA Region 4, in response to these local authorities’ inquiries, told local officials not to accept the reports and that the farmers were instead required to submit them directly to the EPA Office of Water. NPPC’s experience was that the 2008 EPCRA reporting rule was essentially requiring producers to make “crank” phone calls and faxes to emergency response authorities, who had far more important things to be working on. To say this experience led to a high degree of cynicism in farmers and a further loss in the credibility of environmental policy-makers is an understatement.

Similarly, agriculture never has understood how the reporting of these emissions to the U.S. Coast Guard under CERCLA would do anything to support the legitimate emergency response purposes of CERCLA. If there is a legitimate need to understand animal agriculture’s emissions for future possible air-quality policy development, the accurate, effective and efficient way to generate that body of knowledge is not through CERCLA reporting. While, as discussed below, there are some important limitations to the data submitted to U.S. EPA under NAEMS – as there is for the related body of knowledge developed through Land Grant University research – those data and that knowledge about animal agriculture’s emissions are certainly sufficient to establish a general understanding of these emissions and to point the way for further, targeted study.

The decision by the U.S. Court of Appeals for the District of Columbia Circuit last April, despite the objections of the Department of Justice under President Obama, to strike the

agricultural exemption from this reporting rule has brought all of this confusion and controversy back to the forefront. The latest industry estimates of the number of animal producers who could be subject to the reporting requirements is now on the order of 200,000 or more. While the pork industry is certainly prepared to comply with CERCLA and EPCRA reporting requirements once the appeals court's mandate takes effect, all should take note that the U.S. EPA, the U.S. Coast Guard and the state and local emergency response authorities have gone on record citing there is not only no need for this information but that its volume will create a major management challenge for these authorities and that it will interfere with their other, legitimate emergency functions.

It is for this reason that the NPPC is fully supportive of a legislative effort to address this requirement in CERCLA and, if possible, in EPCRA.

National Air Emissions Monitoring Study

As noted before, confusion and controversy followed the emergence in the late 1990s of potential CERCLA and EPCRA reporting requirements for animal agriculture. In addition to the fundamental questions animal agriculture raised about the lawfulness and correctness of such requirements for emissions from manure, at that time there was no consensus method for how animal producers could accurately and meaningfully estimate their emissions, there was no U.S. EPA guidance to animal agriculture about reporting and there was no history of the agency working with the sector on this. There also were a host of questions about who should report, what type of facilities and what activities would be covered. Recognizing this confusion, the U.S. EPA under the Clinton and Bush administrations essentially called for a timeout while these matters were addressed. The timeout took the form of Air Consent Agreements, involving thousands of animal producers and their facilities. It also took the form of an industry-funded (approximately \$16 million from pork, dairy, egg and broiler producers; \$6 million of that from swine producers), U.S. EPA-supervised, university researcher-led air emissions monitoring study (NAEMS). The NAEMS data has been submitted to U.S. EPA for processing and developing species-specific emissions estimation methodologies (EEMs). U.S. EPA's efforts to generate these EEMs has been, in NPPC's estimation, stalled by ill-advised criticisms that, while of a scientific nature, were unrelated to

the purposes and uses for which the data were collected. They also showed the limitations of the data and the design of the study.

NPPC has serious concerns that the EEMs from the NAEMS data, even if augmented by other more-recent research on animal air emissions, may never be sufficiently robust to allow their universal use in a regulatory program. But NPPC believes there is no question that these data and the emissions factors from them will be sufficient to support a greater, more general understanding of the air emissions from animal agriculture. NPPC fully support U.S. EPA moving forward with the development of emissions estimation methodologies from the NAEMS data, provided these limitations and considerations are taken fully into account.

Conclusion

Pork producers are proud of the way they and their industry dealt with the economic and market forces that required the industry to rapidly adapt to new realities. As part of this adaptation, producers successfully committed themselves to a hog production model that allows them to responsibly manage their manure. Producers are similarly proud of the great increases in productive and resource use efficiency that this model has made possible, and they see no reason that further gains in efficiency and the resulting resource are not possible.

Pork producers do not oppose environmental regulation; what they do oppose is regulations that are not sound, effective and practical. Producers reject any notion that modern hog farming cannot be conducted in a manner that is responsible and suitable for today's call for better environmental performance.

NPPC and the U.S. pork industry stand ready to work with Congress, the federal and state agencies and anyone who is willing to work with them to take on and address these challenges.