



## National Milk Producers Federation

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*"Connecting Cows, Cooperatives, Capitol Hill, and Consumers"*

March 7, 2012

Agri-Mark, Inc.  
Arkansas Dairy Cooperative Association  
Associated Milk Producers Inc.  
Continental Dairy Products, Inc.  
Cooperative Milk Producers Association  
Dairy Farmers of America, Inc.  
Dairylea Cooperative Inc.  
Dairymen's Marketing Cooperative, Inc.  
Ellsworth Cooperative Creamery  
Farmers Cooperative Creamery  
First District Association  
Foremost Farms USA  
Just Jersey Cooperative, Inc.  
Land O'Lakes, Inc.  
Lone Star Milk Producers  
Manitowoc Milk Producers Cooperative  
Maryland & Virginia Milk Producers Cooperative Association  
Michigan Milk Producers Association  
Mid-West Dairymen's Company  
Northwest Dairy Association  
Prairie Farms Dairy, Inc.  
Premier Milk Inc.  
St. Albans Cooperative Creamery, Inc.  
Scioto County Cooperative Milk Producers' Association  
Select Milk Producers  
Southeast Milk, Inc.  
Swiss Valley Farms Company  
Tillamook County Creamery Association  
United Dairymen of Arizona  
Upstate Niagara Cooperative, Inc.  
Zia Milk Producers, Inc.

Science Advisory Board Animal Feeding Operations Emission Review Panel  
Mr. Edward Hanlon, Designated Federal Officer (DFO)  
U.S. Environmental Protection Agency  
USEPA Headquarters  
Ariel Rios Building  
1200 Pennsylvania Avenue, N. W.  
Mail Code: 1400R  
Washington, DC 20460

Re: "Draft—Development of Emissions Estimating Methodologies for Broiler Animal Feeding Operations" and "Draft—Development of Emissions Estimating Methodologies for Lagoons and Basins at Swine and Dairy Animal Feeding Operations"

Dear Review Panel Members:

The National Milk Producers Federation (**NMPF**) takes great interest in the U.S. Environmental Protection Agency (**EPA**) Science Advisory Board Animal Feeding Operations Emission Review Panel (**Review Panel**) activities relating to the National Air Emission Monitoring Study (**NAEMS**). The National Milk Producers Federation, based in Arlington, VA, develops and carries out policies that advance the well-being of dairy producers and the cooperatives they own. The members of NMPF's 31 cooperatives produce the majority of the U.S. milk supply, making NMPF the voice of more than 32,000 dairy producers on Capitol Hill and with government agencies.

The Review Panel has been tasked with the important duty of reviewing air emission estimating methodologies (**EEM**) that EPA has developed as part of the NAEMS process. The outcome of the Review Panel's deliberations, assessment, and recommendations to EPA are highly important to the U.S. dairy industry. During the first meeting, the Review Panel will begin deliberations on the "Draft—Development of Emissions Estimating Methodologies for Broiler Animal Feeding Operations"<sup>1</sup> (**AFOs**) and "Draft—Development of Emissions Estimating Methodologies for Lagoons and Basins at Swine and Dairy Animal Feeding Operations"<sup>2</sup>. NMPF offers the following background and comments to the Review Panel on these drafts and the NAEMS process.

<sup>1</sup> *Draft—Development of Emissions Estimating Methodologies for Broiler Animal Feeding Operations*. Environmental Protection Agency, Research Triangle Park, N.C. February 2012.

<sup>2</sup> *Draft—Development of Emissions Estimating Methodologies for Lagoons and Basins at Swine and Dairy Animal Feeding Operations*. Environmental Protection Agency, Research Triangle Park, N.C. February 2012.

**Jerry Kozak, President/Chief Executive Officer**

**Randy Mooney, Chairman**

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## **Background**

During the last fifteen years, lawsuits, and threats of lawsuits, against livestock operations have resulted from citizen complaints demanding regulatory action, and often invoke provisions of one or more of the following laws: the Comprehensive Environmental Response Compensation and Liability Act (CERCLA); the Emergency Planning and Community Right-to-Know Act (EPCRA); and the Clean Air Act (CAA). These laws are traditionally used for regulating industrial operations, not agricultural operations. However, these provisions have recently been applied to emissions from animal feeding operation barns, lagoons, and retention ponds.

In late 2001, the Administrator of the Environmental Protection Agency indicated that adequate scientific data did not exist to develop effective air emission regulations for livestock operations. The National Academy of Sciences concurred with that assessment in 2002. Nevertheless, courts have continued to rule that livestock operations are subject to the provisions of the legislation listed above.

To offer livestock producers a solution to this vulnerability, the Ag Air Coalition negotiated a Consent Agreement (or “Safe Harbor” agreement) with EPA. The Consent Agreement offered producers protection from liability from lawsuits and regulatory action for any past violations. Such protection continued through a scientific data collection period, and until effective air emission regulations are developed and farmers have had a reasonable amount of time to bring their livestock operations into compliance.

In exchange for this protection, affected industry groups agreed to provide the necessary funding to collect the data EPA needs to develop effective regulations. NMPF participated in the negotiation of the agreement and the development of the dairy protocol for the air emissions study. Because of the \$2 to \$3 million annual cost of the data collection process, a one-time waiver in the laws restricting use of the mandatory dairy check-off funds for environmental issues was successfully obtained. Thus, funding for this project was allocated from the budget of the National Dairy Board.

Dairy producers became eligible to participate in the Consent Agreement by paying a small penalty fee based on herd size. For dairies, the maximum fee was in the range of \$2,000 to \$3,000; 572 dairy farmers signed up for the safe harbor agreement, and of those, five were chosen to participate in the air monitoring study. The five sites were monitored using state of the art scientific equipment, a process which is now complete. This data forms the basis for the draft emission estimating methodologies which the Review Panel will investigate.

## **NAS Review and Recommendations**

In 2001, EPA and the U.S. Department of Agriculture contracted with the National Academy of Sciences (**NAS**) to conduct a review of air emissions from AFOs including an analysis of a model farm approach of emission estimate methodology. Specifically, the NAS expert committee was tasked to:

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- “review and evaluate the scientific basis for estimating the emissions to the atmosphere of various specified substances from confined livestock and poultry operations;
- review the characteristics of the agricultural animal industries, methods for measuring and estimating air emissions, and potential best management practices for mitigating emissions;
- evaluate confined animal feeding production systems in terms of biologic systems; and
- identify critical short- and long-term research needs and recommend methodologic and modeling approaches for estimating and measuring air emissions and potential mitigation technologies.”<sup>3</sup>

In two reports, *The Scientific Basis for Estimating Air Emissions from Animal Feeding Operations: Interim Report* (NAS 2002)<sup>4</sup> and *Air Emissions from Animal Feeding Operations: Current Knowledge, Future Needs* (NAS 2003),<sup>5</sup> NAS made a series of recommendations to EPA about estimating air emissions from AFOs.

NMPF recommends that the Review Panel evaluate the draft EPA EEM to assure conformance to the NAS recommendations. The Review Panel should include in its deliberations an analysis of the adequacy of the draft EPA EEM in meeting the NAS recommendations. If minor or major inadequacies are found, the Review Panel should provide critical feedback to EPA to address these inadequacies. Several members of the Review Panel were involved as either NAS committee members or NAS report reviewers.

NMPF agrees with EPA conclusion “that additional analysis is needed to develop the lagoon EEMs”<sup>6</sup> for ammonia. However several of the proposed lagoon EEM for ammonia appear in conflict with NAS recommendations relative to the use of animal units (a measure of animal mass) and emission factors<sup>7</sup>. While the NAS recommendations were specific to emission factors proposed at the time of the NAS report, both the animal/surface area EEM<sup>8</sup> and the animal/size EEM<sup>9</sup> appear to utilize the same concept.

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<sup>3</sup> Pp. 1-2 in *Air Emissions from Animal Feeding Operations: Current Knowledge, Future Needs*. National Academy of Sciences, Washington D.C. 2003.

<sup>4</sup> *The Scientific Basis for Estimating Air Emissions from Animal Feeding Operations: Interim Report*. National Academy of Sciences, Washington D.C. 2002.

<sup>5</sup> *Air Emissions from Animal Feeding Operations: Current Knowledge, Future Needs*. National Academy of Sciences, Washington D.C. 2003.

<sup>6</sup> Pp. 5-69 in *Draft—Development of Emissions Estimating Methodologies for Lagoons and Basins at Swine and Dairy Animal Feeding Operations*. Environmental Protection Agency, Research Triangle Park, N.C. February 2012.

<sup>7</sup> Pp. 8-9 in *Air Emissions from Animal Feeding Operations: Current Knowledge, Future Needs*. National Academy of Sciences, Washington D.C. 2003.

<sup>8</sup> Pp. 5-59 in *Draft—Development of Emissions Estimating Methodologies for Lagoons and Basins at Swine and Dairy Animal Feeding Operations*. Environmental Protection Agency, Research Triangle Park, N.C. February 2012.

<sup>9</sup> Pp. 5-63 in *Draft—Development of Emissions Estimating Methodologies for Lagoons and Basins at Swine and Dairy Animal Feeding Operations*. Environmental Protection Agency, Research Triangle Park, N.C. February 2012.

We also believe that EPA has neglected the key NAS recommendations of the use of a process-based model<sup>10</sup> with mass balance constraints<sup>11</sup> for EEM. It is not apparent from the EPA EEM how these NAS recommendations have been addressed.

**Conclusion**

Evaluation of the NAEMS data to formulate EEM is an important and complex process that will have far reaching implications for dairy producers. The Review Panel has an important task of reviewing the draft EPA EEM to ensure that the most accurate air emission estimates can be made for regulatory purposes. Given the NAS recommendations on EEM, It is imperative that the Review Panel ensure that the EPA EEM meet these recommendations.

Sincerely,

Jamie Jonker, Ph.D.  
Vice President, Scientific & Regulatory Affairs

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<sup>10</sup> Pp. 9-10 in *Air Emissions from Animal Feeding Operations: Current Knowledge, Future Needs*. National Academy of Sciences, Washington D.C. 2003.

<sup>11</sup> Pp. 6 in *The Scientific Basis for Estimating Air Emissions from Animal Feeding Operations: Interim Report*. National Academy of Sciences, Washington D.C. 2002.

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