



At a Glance

Why We Did This Review

We conducted this review to determine what actions the U.S. Environmental Protection Agency (EPA) has taken to evaluate air emissions from animal feeding operations.

The EPA estimates there are about 18,000 large animal feeding operations nationwide, which can potentially emit air pollutants in high-enough quantities to subject these facilities to Clean Air Act and other statutory requirements. A lack of reliable methods for estimating these emissions prevented the EPA and state and local agencies from determining whether these operations are subject to statutory requirements.

In 2005, the EPA and the animal feeding operations industry entered into a compliance agreement to address this challenge. As part of this agreement, the industry agreed to fund an air emissions monitoring study that the EPA would use to develop improved emission estimating methodologies for the industry.

This report addresses the following:

- *Improving air quality.*

Send all inquiries to our public affairs office at (202) 566-2391 or visit www.epa.gov/oig.

Listing of [OIG reports](#).

Eleven Years After Agreement, EPA Has Not Developed Reliable Emission Estimation Methods to Determine Whether Animal Feeding Operations Comply With Clean Air Act and Other Statutes

What We Found

The industry-funded National Air Emissions Monitoring Study (NAEMS) and the EPA's analyses of the study's results comprised the agency's primary actions to evaluate air emissions from animal feeding operations over the past decade. The NAEMS monitoring was completed more than 7 years ago at a cost of about \$15 million, but the EPA had not finalized any emission estimating methodologies for animal feeding operations. In addition, the EPA had only drafted methodologies for about one-fourth of the emission source and pollutant combinations studied in the NAEMS. The EPA expected to develop and begin publishing emission estimating methodologies by 2009, so the methodologies could be used by the EPA, state and local agencies, and industry operators to determine the applicability of Clean Air Act and other statutory requirements.

Until the EPA develops sound methods to estimate emissions, the agency cannot reliably determine whether animal feeding operations comply with applicable Clean Air Act requirements.

Delays in developing the emission estimating methodologies stemmed from limitations with NAEMS data, uncertainty about how to address significant feedback from the EPA's Science Advisory Board, and a lack of EPA agricultural air expertise and committed resources. The EPA had not finalized its work plan or established timeframes to finish the methodologies. As a result, the applicability of requirements to control emissions from individual animal feeding operations remained undetermined, enforcement protections for consent agreement participants remained in effect longer than anticipated, and a number of agency actions on animal feeding operation emissions continued to be on hold. Further, because the EPA had not conducted systematic planning, the agency was at risk of developing emission estimating methodologies that cannot be widely applied to animal feeding operations.

Recommendations and Planned Corrective Actions

We recommend that the EPA conduct systematic planning for future development of emission estimating methodologies. Based on the results of this planning, the EPA should determine whether it can develop emission estimating methodologies of appropriate quality for each of the emission source and pollutant combinations studied. If the EPA determines that it cannot develop certain emission estimating methodologies, it should notify agreement participants and end civil enforcement protections. For the emission estimating methodologies that can be developed, the EPA should establish public milestones for issuing the draft methodologies. The EPA agreed with our recommendations, and we accepted the agency's planned corrective actions.