

FACT SHEET

Draft Air Emission Models for Animal Feeding Operations

ACTION

- On November 19, 2024, the U.S. Environmental Protection Agency (EPA) published draft air emission models and emission factors for dairy, swine, and poultry operations, developed using data gathered during the National Air Emissions Monitoring Study (NAEMS). The models are available for a 90-day review period for all interested stakeholders.
- The draft models estimate daily and annual air emissions of ammonia, hydrogen sulfide, volatile organic compounds (VOCs) and particulate matter from barns, corrals, manure lagoons, and basins on farms.
- The draft models characterize air emissions while drawing on information that producers already record or that is easily attainable, ensuring the models remain useful and easy-to-use for as many producers as possible.
- The draft emission models allow producers to estimate farm-scale air emissions, considering the number of animals at the operation, as well as local environmental conditions.
- While some of the draft emission models were developed to account for certain operational factors at a farming operation, the models do not reflect all site-specific management factors that affect air emissions. The draft emission models are not “process-based,” and therefore are not intended to compare the impacts of adopting various best management practices or quantify the air emission reductions that could be achieved by changing those practices.
- After the 90-day review of draft emission models for all animal sectors (swine, broiler chickens, egg-laying operations, dairies) and the emission factors for volatile organic compounds (VOCs) for all animal sectors, are complete, EPA will take time to revise and improve the draft models for all animal types.
- Once finalized, the emission models will be used by animal feeding operations participating in a voluntary consent agreement known as the Air Compliance Agreement to determine whether their air emissions trigger certain Clean Air Act (CAA) permitting requirements.
- EPA also expects the final models may be useful for general estimates of air emissions from operations across the United States or comparisons between operations in different regions.

BACKGROUND

- Under the 2005 Air Compliance Agreement (the Agreement) with the animal production industry, EPA is responsible for using NAEMS data to develop emission models for emissions of ammonia, hydrogen sulfide, particulate matter, and VOCs at animal feeding operations raising swine, broiler chickens, egg-laying operations, and dairies.

- In 2013, EPA's Science Advisory Board (SAB) reviewed the original draft emission models and made recommendations for improving their development. SAB's recommendations have been incorporated into the draft emission models as appropriate.
- Previous drafts of these models and emission factors have been posted on EPA's website and comments on those drafts are reflected in the drafts posted as appropriate.

FOR MORE INFORMATION

- The draft air emission models, emission factors and other background information are available electronically at: <https://www.epa.gov/afos-air/national-air-emissions-monitoring-study>.