FACT SHEET

Draft Swine Air Emission Models for Animal Feeding Operations

ACTION

- On August 20, 2020, the U.S. Environmental Protection Agency (EPA) posted draft air emission models for swine operations, developed using data gathered during the National Air Emissions Monitoring Study (NAEMS).
- The draft models estimate daily and annual air emissions of ammonia, hydrogen sulfide, and particulate matter from barns, manure lagoons, and basins on swine farms.
- The 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 emissions, considering the number and size of pigs 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 swine operation, the models do not reflect all site-specific management factors that affect 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 emission reductions that could be achieved by changing those practices.
- After the draft emission models for all animal sectors (swine, broiler chickens, egg-laying operations, and dairies) are complete, EPA will release the entire set of draft models for public comment.
- 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 emissions trigger certain Clean Air Act permitting requirements.
- EPA also expects the final models may be useful for general estimates of air emissions from swine 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 volatile organic compounds (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 swine emission models.
- The Agency plans to release draft emission models for broiler, egg-layer, and dairy animal feeding operations, as well as for VOC emissions from all animal sectors, on a rolling basis between now and late 2021.

FOR MORE INFORMATION
- Today's action and other background information are also available electronically at: https://www.epa.gov/afos-air/national-air-emissions-monitoring-study.
- Questions, suggestions, and voluntary submissions of supplemental data or information can be sent to NAEMS@epa.gov.