

TECHNOLOGY SUMMARY

Full paper is published in the proceedings of:

**MITIGATING AIR EMISSIONS FROM
ANIMAL FEEDING OPERATIONS
CONFERENCE**

Iowa State University Extension
Iowa State University College of Agriculture
and Life Sciences

Conference Proceedings

Sponsored by:

NRI Air Quality Extension & Education
U.S. Pork Center of Excellence
Iowa Farm Bureau Federation
Iowa Egg Council
Iowa Pork Industry Center
Iowa Pork Producers Association

Pennsylvania's Odor Siting Index

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Species: Swine, Poultry, Dairy, Beef, Veal

Use Area: Animal Housing and Manure Storage

Technology Category: Facility Siting and
Management

Air Mitigated Pollutants: Odors

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System Summary:

The Pennsylvania Siting Index was developed in response to specific state legislation (PA Act 38 of 2005) in an effort to objectively evaluate locations for new or expanding regulated animal operations, then develop an Odor Management Plan to reduce the potential for community conflict from building and manure storage odors. The goal is to construct livestock operations where community odor conflict potential is minimized. Data from the site and site map are entered into the index and the resulting score indicates the complexity of Best Management Practices (BMPs) that must be adopted for a producer to develop the site. Scores of less than 50 index points do not require BMPs. Scores from 50 to 99.9 index points require "Level 1" BMPs, which are generally standard, industry-accepted practices. Scores greater than 100 points require more costly and complicated "Level 2" BMPs. The index cannot be used to prevent an individual from constructing an operation, nor is it used to mitigate specific air emissions.

Applicability and Mitigating Mechanism:

- Required for new and expanding regulated animal operations in Pennsylvania.
- Objectively scores sites on a numerical scale.
- Encourages producers to locate animal operations on sites with a low risk of community odor conflict.
- Requires odor-reduction Best Management Practices if the index score is high.
- Requires approved Odor Management Plan and annual operation inspection.

Limitations:

- The index does not measure odors or gasses, nor assess effectiveness of BMPs.
- Weighting of index scores is based on limited data.
- Producers may not be required to implement BMPs when the number of surrounding homes is minimal, even if those homes are relatively close to the animal facility.
- The index does not account for future development around an animal operation.
- Potential for inversion odor conflict is not included in the index.

Cost:

The Pennsylvania State Conservation Commission estimates the cost to producers will be approximately \$1120 for an index and associated odor management plan. BMP installation and maintenance would vary, depending on BMP complexity. If producers choose a site with an index score of <50 points, BMPs would not be required thus erasing all BMP costs.