

Chairman Beltz and members of the House Agriculture Committee,

I oppose SB2174:the added provision “except setback distances may be reduced or extended based on the results of the odor footprint tool developed by the agriculture commissioner. A township may not use an odor annoyance free percentage exceeding ninety-four percent.”

The odor setback bill is the only protection from air pollution for residents living near a proposed CAFO. Bad odors limit outside activities, decrease property values, cause stress, depression and high blood pressure. Odors, however, also indicate that harmful substances that are not obvious are present. PM 2.5, the smallest particles that enter the blood stream and cause inflammation in the blood vessels are created by off gassing of manure; endotoxin, remnants of bacterial cell walls present in dust, irritate the sinuses and throat. Ammonia, hydrogen sulfide, CO₂ are all produced in large amounts by CAFO's.

CAFO's are designed to produce a lot of meat/milk/eggs in a small area which necessarily produce a lot of air and waterborne waste. Although called farms, they are indeed factories(“*a building or buildings in which things are manufactured*” Collins Dictionary). Quoting from the SD Odor Footprint Tool (SDOFT),Part1:Principles and Tool Formulation)

“The livestock industry in the U.S. is largely exempt from the Clean Air Act, the most relevant environmental law dealing with air quality management. For most industrial sources, air permitting is required before commencing the construction of a new facility or expansion of an existing facility.

Two air dispersion models are currently listed by the U.S. EPA as regulatory models: AERMOD and CALPUFF. Both models demand numerous input parameters, including meteorological conditions, terrains, emission source characteristics, receptors, modeling options, output options, etc. As a result, air dispersion modeling is usually done by professionals for a fee.”

... The purpose of the modeling is to simulate the movement and dilution of air pollutants in the outdoor air so that the air pollutant concentrations at the locations of interest or concern (e.g., a residential community)can be calculated.”

The present bill allows for the use of an odor footprint tool to determine a setback perimeter. The SDOFT is a short cut of the EPA sanctioned models. It uses emission averaged from a sample of Midwestern farms with a specified animal type, manure storage type and production area, odor abatement measures rather than actual site data. It incorporates previous weather patterns for a whole section of a state but not topography, temperature, humidity, number of animals for an individual site. It addresses odor, but not other air quality standards. Furthermore, at the proposed 94% maximum, 22 days of odor so bad you change your activity would be allowable.

You get what you pay for: this SDOFT is a cheap but likely inadequate tool to protect CAFO neighbors.

I propose that the odor footprint tool be dropped from this bill. Alternatively, you could study requiring a site specific EPA approved dispersion model which would address both odor and air pollutants that have standards. This should be an acceptable cost to a developer like Riverview Farms which will spend 90 million dollars in Abercrombie and 180 dollars million in Traill County.

This bill fails to promote community acceptance of CAFO's. Townships or counties have the authority to regulate zoning EXCEPT in the case of CAFO's. This is rightfully viewed as an overreach by the state legislature and industry.

When the present setbacks were codified, CAFO's over 5000 AU were not considered. Yet here we are with 12,500 dairy cows 1 mile away from a family home. They are facing 2 manure lagoons totaling the equivalent of 20 Football fields full of waste- consider the odor, flies, dust, traffic, noise.

I propose that you return the right of a local zoning entity to increase the defined setbacks by 50%. Giving the township the ability to increase the setback to 1.5 miles for these largest CAFO's especially, would help with acceptability.

Finally, please remove the provision which allows a CAFO to have the ability to increase the number of animals by 25% without a triggering a higher setback distance(23.1-06-15 subsection 8). This provision is outmoded, enacted when CAFO's were relatively small. Allowing an operation like the Herberg Dairy to increase by 6,250 animals would make the permitted nutrient management plan and odor setback meaningless.

Thank you for your consideration,

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Enc: SD Odor Footprint Tool (SDOFT), Part 1: Principles and Tool Formulation

Foot notes

1. Malodor as a Trigger of Stress and Negative Mood in Neighbors of Industrial Hog Operations [Rachel Avery Horton](#)^{1,✉}, [Steve Wing](#)¹, [Stephen W Marshall](#)¹, [Kimberly A Brownley](#)¹ Am J Public Health 2009 Nov;99(Suppl 3):S610–S615
2. <https://www.nar.realtor/animal-feedlots>
3. Air Pollution from Industrial Swine Operations and Blood Pressure of Neighboring Residents Authors: [Steve Wing](#), [Rachel Avery Horton](#), and [Kathryn M. Rose](#) [Authors Info & Affiliations](#) Environmental Health Perspectives Volume 121, Issue 1 Pages 92 - 96