

Idaho Code Section 22-101A Statement: Section 22-101A, Idaho Code, provides that ISDA must meet certain requirements when it formulates and recommends rules which are broader in scope or more stringent than federal law regulations. The Rules Governing Agriculture Odor Management, IDAPA 02.04.16, are broader in scope and more stringent than federal law in the following manner: 1) This rule establishes design and construction standards and specifications for liquid waste systems (2) This rule establishes inspection criteria, odor management plan requirements and enforcement provisions relative to agricultural odor. The federal government does not regulate agricultural odor in this manner. Therefore, this rule does represent a standard that is broader in scope and more stringent than federal law.

Section 22-101A, Idaho Code, also applies to a rule which “proposes to regulate an activity not regulated by the federal government.” This rule may be used to regulate an activity not regulated by the federal government. The following is a summary of additional information required by Sections 22-101A (3) and (4), Idaho Code. Information relating to Section 22-101A (2) has also been provided. The requirements set forth in this rule were not based upon peer-reviewed science and did not undergo an analysis as to impact the provision would have on public health and the environment.

Section 22-101A(2)(a), Idaho Code. To the degree that a department action is based on science the department shall utilize the best available peer reviewed science and supporting studies conducted in accordance with sound objective scientific practices.

A frequent concern associated with agricultural operations is the generation of unpleasant odors in excess of those normally associated with accepted agricultural practices and the ultimate impact it may have on public health and/or the environment. The Rules Governing Agricultural Odor Management were promulgated to address the less scientifically “tangible” issue of the potential for negative impact odor may have to a neighboring public facility/entity or non-responsible party’s dwelling. This rule utilizes recommended best management practices derived from: the Idaho NRCS Nutrient Management Standard 590, June 1999, Best Management Practices listed in the “Idaho Agricultural Pollution Abatement Plan,” August 2001, ASAE Standard EP379.2 Sections 5 and 6 in their entirety, November 1997 and the NRCS Conservation Practice Standard 317, March 2001. These best management practices are intended to address and mitigate the effects of agricultural odors generated in excess of those normally associated with accepted agricultural practices.

Section 22-101A(2)(b), Idaho Code. To the degree that a department action is based on science the department shall utilize data collected by accepted methods or best available methods if the reliability of the method and the nature of the decision justifies use of the data.

Aside from the qualitative determination of whether or not agricultural odors are in excess of those normally associated with accepted agricultural practices, there are no additional data collection methods used to scientifically verify the provisions of this rule are appropriate. Recently, University of Nebraska-Lincoln had conducted research and proposed setback distances of livestock facilities to reduce neighbor nuisance (Lunn, and Koelsch, 2017; Stowell, et al., n.d.). The setback distances were determined based on the history of wind speed and direction. The setback distances vary depending on the wind zones, which are identified based on the downward wind direction and speed.

Section 22-101A(3)(a), Idaho Code. Identification of each population or receptor addressed by an estimate of public health effects or environmental effects.

There are multiple different agricultural facilities that generate agricultural odor. While many of these facilities are located in rural and often remote areas of the state of Idaho, in some cases they may be located in suburban or urban settings adjacent to public buildings and other private property not used for commercial agriculture. Several research (Cunnick, 1995; Donham, 1998; Schiffman et al., 1998) suggested that livestock generated dust and gas concentration can affect human and animal mental and physical health. Therefore, the purpose of this rule was to encourage agriculture operations to implement best management practices to minimize agricultural odor and any human health impact the operations may have upon nearby properties. The severity of an odor produced by agricultural operations is difficult to quantify with such a broad definition of “Agricultural Odor” and often varies with the individual who is detecting the smell. As a result, the extent to which the population could be affected by agricultural odor is difficult to quantify.

Section 22-101A(3)(b) and (c), Idaho Code. Identification of the expected risk or central estimate of risk for the specific population or receptor and identification of each appropriate upper bound or lower bound estimate of risk.

The estimate of risk neighboring properties to agricultural operations may expect to incur is difficult to quantify given the multitude of different combinations of agricultural operations. In general, however, the risks may be simplified down to the common reasons for complaints the Department receives from these neighboring properties/entities. Specifically, excessive odor is often a common reason for complaints that are received. The intent of the rule is to address and mitigate agricultural odor complaints by requiring producers to implement best management practices when investigations determine odors are in excess of those normally associated with accepted agricultural practices.

Section 22-101A(3)(d), Idaho Code. Identification of each significant uncertainty identified in the process of the assessment of public health effects or environmental effects and any studies that would assist in resolving the uncertainty.

Other than what may be considered unpleasant odor generated on agricultural operations, the potential for introduction of nutrients that may induce eutrophication of water bodies and into drinking or irrigation water are the only risks that have scientifically verified results for the provisions of this rule. Ammonia volatilization from agricultural waste products may contribute to elevated nitrogen in precipitation, which may lead to excess nitrogen in water bodies and the potential acidification of soils.

Section 22-101A(3)(e), Idaho Code. Identification of studies known to the director that support, are directly relevant to, or fail to support any estimate of public health effects or environmental effects and the methodology used to reconcile inconsistencies in the data.

1. Idaho NRCS Nutrient Management Standard 590, June 1999.
2. Best Management Practices listed in the “Idaho Agricultural Pollution Abatement Plan,” August 2001.
3. ASAE Standard EP379.2 Sections 5 and 6 in their entirety, November 1997.
4. NRCS Conservation Practice Standard 317, March 2001.

Cunnick, J.E. 1995. Implications of environmental odor on psychological status and health. International Livestock Odor Conference, October 16-17, 1995, Iowa State University.

Lunn, C., and Koelsch, R. 2017. Siting animal facilities to reduce neighbor nuisance. Available at:

<https://water.unl.edu/article/animal-manure-management/downwind-direction-frequency-minimizing-odor-and-dust-nuisance> (accessed September 6, 2019).

Stowell, R., Powers, D., Schulte, D. and Koelsch, R. n.d. Nebraska order footprint tool. Graphical resource for Lincoln Nebraska. University of Nebraska Lincoln. Available at: <https://water.unl.edu/article/animal-manure-management/odor-footprint-tool> (accessed September 9, 2019).

Donham, K. 1998. Occupational Health Risks For Swine Producers: Inferences for Public Health Risks for People Living in the Vicinity of Swine Production Units, Manure Management Conference, Iowa State University 1998.

Schiffman, Susan S. et al. 1998. The Effect of Environmental Odors Emanating From Commercial Swine Operations on the Mood of Nearby Residents, *Brain Research Bulletin*. 37, 4 (1995): 369-375.