

Economic Impact Statement

LSA Document #21-540

IC 4-22-2.1-5 Statement Concerning Rules Affecting Small Businesses

African swine fever (ASF), one of the "Big Three" highly transmissible and high-consequence diseases of swine, has now been diagnosed in countries around the world spanning the continents of Africa, Asia, and Europe and it has recently been diagnosed near the mainland United States (U.S.) in the Dominican Republic. Millions of hogs have been depopulated as part of the disease response. ASF is a swine disease that would have a devastating economic impact on Indiana livestock producers and the economy if it were found here. Because of the virus's transmission characteristics and the integrated production systems of the U.S. and affected countries, there is a significant risk of its introduction into the U.S. There is no treatment or vaccine available for this disease. The only way to stop this disease is to depopulate all affected or exposed swine herds. The Indiana state board of animal health (BOAH) has been working with the United States Department of Agriculture (USDA) and swine industry on a multi-faceted preparedness effort, which includes national ASF exercises, an integrated surveillance plan, and a voluntary program for swine producers based on the framework of the national Secure Pork Supply (SPS) plan.

In any high-consequence disease outbreak, there are overarching incident objectives, which are detection, containment, and eradication. Detection includes sampling and surveillance of domestic livestock and wildlife. Containment involves actions such as quarantine of infected premises and zones and restricted, permitted movements of animals into and out of a control area. The third component, eradication, involves activities such as depopulation of infected animals, disposal of carcasses, and cleaning and disinfection of sites.

The proposed rule makes changes that support Indiana's preparedness efforts related to the eradication objective. First, in an animal health event, the rule change allows BOAH to authorize a producer to euthanize animals and leave them in a location for longer than 24 hours before the carcasses are removed for disposal. BOAH may want to authorize this for several reasons, such as avoid transferring virus out of a barn, reducing the volume of material that must be removed for disposal, or the logistics of a large-scale depopulation. In addition to the extension of time, this change also allows BOAH to specify a disposal manner that differs from those set forth in the rule under a specific approval in the above-described circumstances.

BOAH's livestock disposal rule currently authorizes the disposal methods of burial to a depth of 4 feet, composting, incineration, digestion, feeding to exotic animals, and removal to a certain licensed facilities or landfills. However, high consequence animal disease outbreaks over the past 20 years have shown the limitations of these methods. For example, other countries responding to foot-and-mouth (FMD) disease have dealt with environmental issues, such as groundwater contamination, and the inherent transmission risk of moving carcasses offsite. In response to these concerns, a law was passed by the Indiana General Assembly in the last legislative session that removed the 4-foot depth requirement and authorized the BOAH to develop burial standards in its place (P.L. No. 41). The proposed rule will carry out this statutory duty by creating a new section that sets forth burial requirements that prevent the spread of disease and protect public health.

To further address the above-described concerns, the proposed rule also authorizes the above ground burial method with a series of performance standards that must be followed. Above ground burial has been scientifically proven to be equally effective at virus elimination as other methods and a preferred option for certain farms from a cost and environmental risk standpoint.¹ Many parts of Indiana do not have soil types that are suitable for carcass burial, so including this option is critical from an environmental perspective.² It is important to emphasize that this rule change in no way negates the authority of the BOAH to ultimately decide the appropriate method of disposal in a high-consequence disease event.

The proposed rule also amends the composting, incineration, and digestion standards to clarify what constitutes thoroughly and completely composted material. The added language has been in BOAH guidance for several years; therefore, the proposed rule is merely transitioning these longstanding requirements to the livestock disposal rule itself.³ It also creates a new section to clarify the requirements for individuals engaging in commercial carcass and inedible waste disposal.

1. Description of Affected Industry

Indiana has over 3,000 commercial swine premises and over 11,000 hobby or exhibition herds registered in the BOAH premises identification program. Indiana ranks 5th in the U.S. for pork production and the swine industry has an annual economic impact of more than \$3 billion dollars (\$1.35 billion of hogs marketed).⁴ It is important to note that the above-described changes to livestock disposal options will be applicable to all species of livestock and poultry, which is a total of 68,193 registered premises.

The BOAH will involve regulated entities in the development of the rule. Prior to a first reading of a rule at a quarterly board meeting, the agency sends out an email correspondence to subscribed stakeholders making them aware of proposed rule changes so they have the opportunity to provide input. All proposed rules are also placed

in multiple areas of the website to provide interested parties as much time as possible to review and comment upon a proposed rule change. The affected industry includes small businesses under the definition at [IC 4-22-2.1-4](#).

2. Estimated Annual Reporting, Record Keeping, and Other Administrative Costs

The proposed rule does not include additional record keeping requirements for the above-described entities. Rather, the proposed rule authorizes the state veterinarian to provide an extension of time and/or carcass disposal alternatives in the event of an animal disease outbreak or other mass mortality event. In this situation, the state veterinarian already has the authority to require that certain records be maintained to verify that the carcasses are properly handled. [IC 15-17-10-9](#); [345 IAC 7-7-3\(d\)](#). The proposed rule does not change the administrative costs associated with this function. It also provides more flexibility with regard to carcass disposal by burial for routine carcass disposal, but this does not include a record keeping or other administrative requirement.

The new section governing commercial carcass disposal requires a facility to submit written design plans and maintain a record of the source of carcasses collected. However, there is not an increase in administrative costs associated with these requirements because the state livestock disposal law already requires these businesses to submit design plans as a part of the process to obtain a disposal plant license. [IC 15-17-11-11](#). State law further requires the 27 currently licensed entities engaged in commercial carcass disposal to maintain records related to the source and disposition of carcasses. [IC 15-17-11-24](#); [345 IAC 7-7-4](#). In addition, these records should already be maintained by a commercial operation for other business purposes. There is a diverse type of carcass disposal business that falls under the statutory definition of "disposal plant", which includes rendering plants, collection services, commercial compost facilities, and animal incineration facilities. The purpose of this new section is to consolidate requirements found in various sections of state law and rule and clarify the expectations for each type of entity.

3. Estimated Total Annual Economic Impact on Small Businesses

This rule does not increase compliance costs for regulated entities. Rather, the proposed rule reduces regulatory impact by ensuring that animal owners have the appropriate amount of time to accomplish proper disposal in an emergency event. In both emergency events and routine carcass disposal, it provides the ability to select from all dead animal disposal methods that have been scientifically proven to mitigate the risk of disease transmission.

BOAH's livestock disposal rule currently authorizes the disposal methods of burial to a depth of 4 feet, composting, incineration, digestion, feeding to exotic animals, and removal to a certain licensed facilities or landfills. With regard to burial, many parts of Indiana do not have soil types that are suitable for carcass burial, so including the above ground burial option is critical from an environmental perspective.⁵ Burial does not provide a suitable environment for biological decomposition, requires equipment that may not be available on a farm, and places decomposition fluids closer to the groundwater table.⁶ During the response to an extremely contagious disease, above ground burial can be implemented more quickly than traditional composting to minimize the aerosolization of virus particles, reducing the potential for the spread of the disease.

The proposed rule will authorize the above ground burial method with a series of performance standards that must be followed. Above ground burial does not accomplish pathogen inactivation by the high temperatures reached with composting. Rather, the pathogen is killed and the carcass is decomposed by a biologically active, aerobic soil zone and the absence of a live host. This method has been scientifically proven to be equally effective at virus elimination as other methods with the following benefits:

- Simple, low technology design allows implementation with minimal training.
- Low execution cost and relatively rapid to install.
- Shallow trench depth and carbon layer to absorb decomposition fluids means it can be used in more diverse geologic settings.
- Reduces potential for disease spread by keeping carcasses on the infected farm and minimizing need for external inputs.
- Carcasses may be left in place or may be excavated for permanent disposal after initial disease eradication.⁷

If the BOAH does not proceed with this proposed rule, it will have a negative economic impact on the regulated community. With the potential for significant economic and environmental costs associated with ineffective carcass management, foreign animal disease responders need additional disposal methods to support their disease eradication efforts. It is important to emphasize that this rule change in no way negates the authority of the BOAH to ultimately decide the appropriate method of disposal in a high-consequence disease event. With regard to the proposed rule, the BOAH estimates that the total estimated impact (cost) of the rule will be less than \$500,000.

4. Justification of Requirements

a. Compliance with Federal Law

The USDA also has jurisdiction over the disposal of dead animals in a high-consequence animal disease outbreak and disposal plans must be approved by the USDA in order for animal owners to be eligible for indemnity payments. However, this proposed rule is not specifically necessary to comply with a federal mandate. The USDA relies on states to have their own laws and rules in place governing appropriate carcass disposal in both routine and emergency situations.

b. Compliance with State Law

BOAH is responsible under state law to oversee the movement and disposal of animal carcasses in order to ensure safe disposal and control and eradicate diseases affecting the health of animals within Indiana. [IC 15-17-3-13\(9\)](#); [IC 15-17-11-20](#). To carry out this duty, it is critical that BOAH periodically updates its rule to incorporate disposal methods that have been scientifically proven to be equally effective at virus elimination as other methods and a preferred option for certain farms from a cost and environmental risk standpoint.

c. Justification of Requirements not Mandated by State or Federal Law

The proposed rule does not impose any requirement or cost beyond what is expressly required by state or federal law.

5. Regulatory Flexibility Analysis

Because the proposed rule is reducing regulatory impact by providing additional disposal timelines and options for responders and animal owners, the BOAH did not consider alternatives to what is being proposed.

¹ International Journal of One Health, *Aboveground burial for managing catastrophic losses of livestock*, www.onehealthjournal.org/Vol.3/9.pdf

² United States Department of Agriculture, Natural Resources Conservation Service (NRCS) https://efotg.sc.egov.usda.gov/references/public/IN/statewide_trench.pdf

³ Indiana State Board of Animal Health, *Policy on Processing Animal Carcasses*, October 27, 2011.

⁴ United Soybean Board, *Economic Analysis of Animal Agriculture*

<http://www.animal.ag/economics/state-reports/INDIANA%20Economic%20Analysis%20of%20Animal%20Agriculture%202005-2010.pdf>
Indiana Pork Producers Association <https://www.indianapork.org/>

⁵ United States Department of Agriculture, Natural Resources Conservation Service (NRCS) https://efotg.sc.egov.usda.gov/references/public/IN/statewide_trench.pdf

⁶ BioCycle, *Mesophilic Static Pile Composting of Animal Carcasses*, March/April 2017.

⁷ International Journal of One Health, *Aboveground burial for managing catastrophic losses of livestock*, www.onehealthjournal.org/Vol.3/9.pdf

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