

**Cost-Benefit Analysis Processed Manure rule
LSA Document number 20-15**

2) **Cost-Benefit Analysis.** Prior to State Budget Agency approval of a rule under Executive Order 2-89, the agency proposing the adoption of a new rule or the adoption of an amendment to an existing rule must complete and submit to the Budget Agency a costbenefit analysis of the proposed rule or amendment. All cost-benefit analyses will be reviewed by the agency's budget analyst and the Office of Management and Budget pursuant to IC 4-3-22-13 and IC 4-22-2-28. This cost-benefit analysis shall replace and be used for all purposes under IC 4-22-2 in lieu of the fiscal analysis previously performed by the Legislative Services Agency under IC 4-22-2. At a minimum, the cost-benefit analysis shall contain the following:

a. **Statement of Need, including:**

i. An explanation as to whether the rule is intended 1) to address a federal or state statutory requirement; 2) to address an alleged market failure; and/or 3) to serve a public need, such as improving government processes or promoting public safety or health.

The intent of the rule is to address an alleged market failure. Many large livestock operations have begun to incorporate new and developing technologies in handling the manure that is generated. The result of the new technology is that the manure been manipulated and has had some it properties or characteristics changed and the product is a material that has a more consistent nutrient analysis and may be considered a commercial fertilizer under IC 15-16-2. In order for a firm to market this product as a commercial fertilizer it would have to meet all of the requirements of traditional commercial fertilizer including storage requirements plus incur an inspection fee of \$0.45/ton. Traditional commercial fertilizers frequently have values of \$250/ton or more where inspection fee of \$0.45/ton reflect only 0.18% of the value. Processed manures have much less value as their nutrient content is considerably less. This is making distribution cost prohibitive.

The rule will establish a reasonable tiered inspection fee as well as establish storage and handling requirement consistent with IDEM's requirements for the manure that is used to make these products.

ii. An estimate of the number of individuals and businesses affected by the rule. OISC estimates that there will be less than 10 individuals or businesses that will be affected by the rule.

iii. An evaluation of the policy rationale or goal behind the proposed rule, including an analysis of the following:

1. An identification of the conduct and its frequency of occurrence that the rule is designed to change;

Several large livestock operations have begun to incorporate new and developing technologies in handling the manure that is generated. The result of the new technology is that the manure been

manipulated and has had some of its properties or characteristics changed and the product is a material that has a more consistent nutrient analysis and may be considered a commercial fertilizer under IC 15-16-2. It is nothing else the technology allows the nutrients to be concentrated into a solid and a less nutrient dense liquid. This makes it more feasible to use the nutrients more efficiently. In order for a firm to market this product as a commercial fertilizer it would have to meet all of the requirements of traditional commercial fertilizer including storage requirements plus incur an inspection fee of \$0.45/ton. Traditional commercial fertilizers frequently have values of \$250/ton or more where inspection fee of \$0.45/ton reflect only 0.18% of the value. Processed manures have much less value as their nutrient content is considerably less. This is making distribution cost prohibitive.

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2. The harm resulting from the conduct that the rule is designed to change and the likelihood the conduct will continue to occur absent a rule change; and

Currently OISC only has 1 business that registers a processed manure product. That firm is paying the inspection fee of \$0.45/ton. The other businesses that have processed manure are not able to market that manure with a guaranteed claim of nutrients. As mentioned above it is cost prohibited to market these products as a traditional commercial fertilizer and comply with IC 15-16-2. The proposed rules will create a system that will allow for the economical distribution of these products. The proposed rules are voluntary as it is only applicable if the processed manure is marketed with a guaranteed nutrient content. The implementation of the proposed rule will allow those businesses wishing to market their processed manure with a guarantee to do so.

3. Whether and how the agency has involved regulated entities in the development of the rule.

A work group was used to develop the proposed rule. The workgroup included representatives from Indiana Farm Bureau, Indiana Pork, Indiana Plant Food and Agrichemical Association as well as various others that represent the livestock industry.

iv. A detailed description of the agency's methodology used in making the above determinations.

It is our office's policy to involve others in the development of our rules. OISC was contacted by individuals that represent several large livestock operations when the law change was being discussed, P.L.144-2017, SEC.1, that requires this rule to be written. Those individuals were part of the work group. We also included individuals that represent the major livestock producers as they are the facilities that currently have the technology to process manure. Indiana Plant Food and Agrochemical Association represents commercial fertilizer dealers and they were included because these manure based commercial fertilizers compete with their businesses. Indiana Farm Bureau was involved as they represent the end users of these products.

b. Evaluation of Costs and Benefits. The agency shall provide a comprehensive

enumeration of the costs and benefits of the rule, including tangible and intangible costs and benefits. If costs and benefits cannot be monetized or quantified, the agency should explain why and include a thorough description of the nonquantifiable costs and benefits as well as a determination whether such costs and benefits will be significant. **The cost-benefit analysis should conclude with the agency's determination whether the benefits are likely to exceed the costs.** In reaching that determination, the agency should include the following factors in its analysis, or an explanation of why each factor is not applicable:

i. An estimate of the primary and direct benefits of the rule, including the impact on consumer protection, worker safety, the environment, and business competitiveness;

The primary and direct benefit of the proposed rule is that a system is created to allow processed manure to be treated more similarly to a commercial fertilizer as opposed to waste material. Businesses will be able to provide a guarantee of the nutrient contents; that will protect the consumer as the consumer will have a guarantee and be assured that the material will meet that minimum. The proposed rules will also establish storage requirements for these materials that will complement IDEM's storage rules.

The fees associated with the distribution of the processed manure were correlated to the similar amount of commercial fertilizer needed. The reason for this is to equate commercial fertilizer used to processed manure and they will have a similar fee structure making the businesses paying similar fees.

ii. An estimate of the secondary or indirect benefits of the rule and an explanation of how the conduct regulated by the rule is linked to the primary and secondary benefits;

Not only will businesses be able to market their product with a nutrient guarantee. The secondary benefit is to the consumers that will purchase these products. Consumers will be able to have more confidence in the products they are purchasing as they will have a guaranteed minimum.

iii. An estimate of the compliance costs for regulated entities (including but not limited to individuals and businesses), including but not limited to the costs of fees, new equipment or supplies, increased labor and training, education, supervisory costs, and any other compliance cost imposed by the requirements of the rule;

The estimated cost of compliance for regulated entities will be at the most \$5,000 per year. The maximum inspection fee they will pay is \$2,000 semi-annually. There will be a product registration fee of \$20 per product and we anticipate no company to have more than 5 products registered. The inclusion of a regulated entity is by their choice. The chose to market their product with a guarantee. All of the existing entities that we are aware of currently have equipment in place with the purpose of making their manure processing system more efficient. The ability to market their products is a bonus for them. The entities are currently regulated by IDEM. Our requirements are the same as IDEM's so there should be little to no additional costs.

iv. An estimate of the administrative expenses, including but not limited to any legal, consulting, reporting, accounting or other administrative expenses imposed by the requirements of the rule; and

OISC currently registers over 9,000 fertilizer products from over 600 companies. We estimate that the proposed rules may add an additional 10 products from 5 or fewer companies. The miniscule increase of administrative expenses should be negligible.

v. An estimate of any cost savings to regulated entities (including but not limited to individuals and businesses) as a result of the proposed rule, however, the agency shall note whether such savings are from a change in an existing requirement or the imposition of a new requirement.

A very large dairy will generate between 80,000,000 and 90,000,000 gallons of manure a year. At an estimated 8.5 pounds per gallon that represents 340,000 to 882,500 tons of material. The current inspection fee of \$0.45/ton would represent between \$153,000 and \$172,125. With the propose rules the inspection fee for a facility described above would be \$2,000 made up from 2 semi-annual tonnage payments of \$1,000. We have also been told by the entities that they will be able to charge a higher rate for their products if they would be able to guarantee their products.

It is impossible to correctly quantify the savings that a regulated entity would receive from the proposed rules as we don't know the quantity of material that will be marketed with a guarantee, how much will be sold as manure and how much will be used within their own operation.

However, you can see that compared to having an inspection fee of \$0.45/ton verses a maximum fee of \$3,000 any entity that distributes more than 7,000 tons of materials will be saving costs. Additionally, there are a total of 3 tiers for inspection fees.

To aid in identifying costs and benefits, the agency should consult economic theory, previous academic or internal agency research, scenarios developed while defining the statement of need and policy rationale for the proposed rule; collaborate with colleagues within and outside the agency and consult with the public and regulated entities; and provide sufficient justification for the agency's methodology in making the above determinations.

c. Examination of Alternatives. The agency should include in its analysis an evaluation of alternatives to achieve the objectives of the proposed rule or amendment. The following list of additional alternatives shall also be considered:

i. Alternatives defined by statute. Is the rule consistent with the specific statutory requirement and clearly within the agency's statutory discretion?

The Commercial Fertilizer Law was amended in 2017 directing OISC to adopt rules:

IC 15-16-2-1.5 Manure based fertilizer; exceptions; rules

Sec. 1.5. (a) As used in this section, "manure based fertilizer" means processed manure based commercial fertilizer with a manure content of at least seventy-five percent (75%).

(b) Except as provided in subsection (c) and sections 35 and 36 of this chapter, this chapter does not apply to manure based fertilizer.

(c) The state chemist shall adopt rules under IC 4-22-2:

(1) regulating the distribution of manure based fertilizer; and

(2) establishing fees for the distribution of manure based fertilizer.

As added by P.L.144-2017, SEC.1.

ii. The feasibility of market oriented approaches, including a determination whether the market could eventually remedy the alleged harm the rule is intended to regulate, rather than direct controls;

The market oriented approach by the regulated entities is what lead to the amendment of the Commercial Fertilizer Law. Large farms have been using many approaches to improve their manure handling systems and have significantly manipulated the manure that is produced. This manipulation according to the Indiana Commercial Fertilizer law creates a commercial fertilizer, IC 15-16-2-8. The regulated entities approached OISC because they wished to market their commercial fertilizer but were not able to operate within the current structure of rules and regulations. By amending the law and adopting the proposed rules the regulated entities will have separate tonnage inspection fees and storage requirements that will remedy their concerns and any harm that they perceive from being regulated as a traditional commercial fertilizer.

iii. Measures to improve the availability of information, as an alternative to regulation;

The market oriented approach by the regulated entities is what lead to the amendment of the Commercial Fertilizer Law. The regulated entities choses to be regulated by the proposed rules. By marketing their processed manure with a nutrient guarantee they opt to be regulated by this rule. Should they provide an approximate nutrient analysis the regulated entities are simply selling manure they generated. We estimate that there are currently 5 facilities that process their manure and wish to market it with a nutrient guarantee. OISC will meet with each of those facilities as well as work with the various associations to ensure that information is available.

iv. If applicable, various enforcement methods, such as inspections, periodic reporting, and non-compliance penalties;

OISC policy is to begin with a compliance assistance and education before we begin enforcing the new rules.

v. Performance standards rather than design standards. Performance standards express requirements in terms of desired outcomes. Design standards express requirements in terms of the specific means that must be satisfied without choice or discretion;

By marketing their processed manure with a nutrient guarantee they opt to be regulated by this rule. Should they provide an approximate nutrient analysis as typical, the regulated entities are simply selling manure they generated and the proposed rules will not apply.

vi. Different requirements for different sized regulated entities. A variation of benefits and costs may exist depending on the mix of entities being regulated;

The proposed rules establish 3 tonnage tiers for their inspection fees. Regulated entities that distribute up to 1,250 tons of processed manure semiannually will have an inspection fee of \$100. Entities distributing more than 1,250 tons up to 5,000 tons of processed manure semiannually will have an inspection fee of \$500. Entities that distribute more than 5,000 tons of processed manure semiannually will have an inspection fee of \$1,000.

vii. Establish a baseline. It is often helpful to establish a baseline for the cost benefit analysis as a source of comparison. Consider how the world would look without the proposed rule. Issues to consider when forming a baseline include evolution of the market, changes in external factors affecting expected costs and benefits, existing rules by the agency and other government entities, and the degree of compliance by regulated entities with other rules. Note that such an analysis cannot assume that the rule will be adopted;

Without the proposed rule the world looks like entities are creating a processed manure commercial fertilizer and are not distributing it with a nutrient guarantee because they cannot afford to pay the \$0.45/ton inspection fee or store the material as required by 355 IAC Article 2: Indiana Commercial Fertilizer Rules. They are distributing their processed manure product without a nutrient guarantee and are depriving those receiving it of the security of knowing that the product is registered with OISC and we provide oversight for consumer protection. It is also possible that the regulated entities are providing guarantees to their customers but are not complying with the existing framework within the Indiana Commercial Fertilizer Law and not paying the inspection fee and depriving OISC of possibly hundreds of thousands of dollars in inspections fees. Without the proposed rules obviously things would continue as they are now. The regulated entities that asked for this rule plan to continue to utilize new technologies and develop more to help them better process their manure. Their goal is to separate the nutrients to the solids for easier transport and application while leaving the liquid portion with essentially no nutritive value. As these technologies evolve the materials produced will become more refined and consistent in nutrient content. This nutritive material must go somewhere for land application and without a nutrient guarantee many producers that receive these products would not have the confidence that the fertilizer material they are purchasing has the value it does and would end up applying significantly more to their land. Over application of nutrients can result in many negative impact to the environment as well as the producers' bottom line.

viii. Different compliance dates; and

As these proposed rules are in essence voluntary as the regulated parties may choose to market their processed manure products with or without a nutrient guarantee the anticipated compliance date will be 30 days after signing.

ix. Redundancy. Per IC 4-22-2-19.5, consider whether the proposed rule duplicates standards already found in state or federal law.

There are not duplicate standards in place.

d. A determination as to whether the proposed rule will have a total estimated impact greater than \$500,000 on all regulated persons (IC 4-22-2-28). The agency shall describe here the data used and assumptions made in making that determination.

OISC estimates that the proposed rule will not have a total impact greater than \$500,000. The maximum an entity will pay in inspection fees will be is \$2,000 per year with an additional \$20 per product. No entity should have an expense more than \$2,100 and the other additional requirements for recordkeeping should be no more than what they are already required to keep for their marketing and distribution of their manure for IDEM.

e. Independent verification or studies to support the policy rationale and types and quantifications of the costs and benefits.

No verification or studies were conducted.

f. The sources relied upon in determining and calculating the costs and benefits.

Sources used in determining the costs were the consulting group that represents many of the large dairies that process their manure in northwest Indiana as well as the livestock and agricultural commodity groups and Indiana Farm Bureau.