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**TITLE 329 SOLID WASTE MANAGEMENT BOARD****Proposed Rule**  
LSA Document #09-193**DIGEST**

Amends [329 IAC 11-3-1](#) and adds [329 IAC 11.5](#) concerning registration, including construction and expansion of a facility, storage and operational requirements, and closure and financial assurance for biomass anaerobic digestion facilities and biomass gasification facilities. Effective 30 days after filing with the Publisher.

**HISTORY**

First Notice of Comment Period: March 25, 2009, Indiana Register (DIN: [20090325-IR-329090193FNA](#)).

Continuation of First Notice of Comment Period: June 8, 2011, Indiana Register (DIN: [20110608-IR-329090193FCA](#)).

Second Notice of Comment Period: July 27, 2011, Indiana Register (DIN: [20110727-IR-329090193SNA](#)).

Notice of First Hearing: July 27, 2011, Indiana Register (DIN: [20110727-IR-329090193PHA](#)).

Change in Notice of Public Hearing: October 26, 2011, Indiana Register (DIN: [20111026-IR-329090193CHA](#)).

Change in Notice of Public Hearing: December 7, 2011, Indiana Register (DIN: [20111207-IR-329090193CHA](#)).

Date of First Hearing: February 21, 2012.

**PUBLIC COMMENTS UNDER [IC 13-14-9-4.5](#)**

[IC 13-14-9-4.5](#) states that a board may not adopt a rule under [IC 13-14-9](#) that is substantively different from the draft rule published under [IC 13-14-9-4](#), until the board has conducted a third comment period that is at least 21 days long.

Because this proposed rule is not substantively different from the draft rule published on July 27, 2011, Indiana Register, DIN: [20110727-IR-329090193SNA](#), the Indiana Department of Environmental Management (IDEM) is not requesting additional comment on this proposed rule.

**SUMMARY/RESPONSE TO COMMENTS FROM THE SECOND COMMENT PERIOD**

IDEM requested public comment from July 27, 2010, through August 26, 2010, on IDEM's draft rule language. IDEM received comments from the following parties:

Justin T. Schneider, Indiana Farm Bureau and Josh Trenary, Indiana Pork Advocacy Coalition (IFB and IPAC)

Following is a summary of the comments received and IDEM's responses thereto:

*Comment:* Overall, we remain concerned that this rule is being implemented in a manner which does not follow the intent of the General Assembly. While the rule required registration rather than the more rigorous permitting scheme applied to solid waste processing facilities, the rule as proposed has lumped biomass into a category with Industrial waste products such as paper pulp, sewage sludge, and pallets. (IFB and IPAC)

*Response:* The department is proposing a rule that is broader in scope to accommodate the regulated communities' request to process appropriate feedstock, such as sewage treatment sludge and paper pulp, which was not included in the statutory definition of biomass. The department has attempted to write a rule that streamlines and standardizes all the requirements for digesters and gasification facilities, regardless of whether the facility is processing a material that meets the statutory definition of "biomass" or "appropriate feedstock", as the processes are essentially identical. This proposed rule incorporates the statutory definition of biomass. A new section will be added under Rule 3, Exclusions, to clarify that a separate registration is not needed for digesters and gasifiers permitted as a waste management system under [327 IAC 19-13-2](#). However, such systems must meet the regulatory requirements established under this rule.

*Comment:* Moreover, repeated references to "waste" and "disposal" and other solid waste regulations are included throughout the rule. It is our belief based on the action of the General Assembly and the clear limitation of their statute to biomass products that they intended for clean forms of biomass to be treated differently than sewage sludge, paper pulp, and other industrial process byproducts. Moreover, many of the materials listed as biomass are crops or timber which are grown specifically for the purpose of energy production, and thus should not be categorized as solid waste products. We suggest that the reference to "waste" and "solid waste" throughout the rule be changed to biomass except in those instances where the reference is to an actual solid waste product or rule. (IFB and IPAC)

*Response:* The department did include the statutory definition of biomass in the rule; however, the department is proposing a rule that is broader in scope to accommodate the regulated communities' request to process appropriate feedstock, such as sewage treatment sludge and paper pulp, which was not included in the

statutory definition of biomass. The term "waste" and "solid waste" have been removed, where appropriate, in reference to biomass, appropriate feedstock and residue.

*Comment:* There are also several areas in which the rule refers to reuse and recycling. While those are commendable use of solid waste, we do not believe that this particular rule is about reuse or recycling. Per the requirement of the General Assembly, it is meant to be a rule limited to use of biomass for energy production through an anaerobic digester or gasifier. (IFB and IPAC)

*Response:* This rule addresses the use of a renewable energy source known as biomass and other solid wastes that are processed in a digester or gasification unit. The references to "recycling" have been deleted.

*Comment:* We do believe that this version of the rule has been vastly improved over the concept which existed in the first notice of rulemaking in 2009. Nonetheless, this rule could be simplified. Given these concerns, we ask that IDEM coordinate a workgroup to discuss this proposed rule before proceeding to the public hearing. We provide these comments as a guide for issues which we believe should be addressed by a workgroup. (IFB and IPAC)

*Response:* Purdue is sponsoring the Indiana Biomass Energy Working Group, to discuss and participate in the rulemaking. The working group also provides education on biomass operations. IDEM is a member of the working group and has made the participants aware of the rule language and rule process and asked for comments on the language.

*Comment:* [329 IAC 11.5-1-1](#) Purpose

We question the reference to "or reusable treated waste, such as animal bedding." It is unclear what this language is meant to add, although it appears that this may be included in an effort to require registration for farms that use sawdust or dried and composed manure as bedding. If that is the case, we do not believe that the use of biomass in bedding is an activity which should be regulated by IDEM under this rule. (IFB and IPAC)

*Response:* The term "waste" has been changed to "biomass and appropriate feedstock." The intent is to assure that solids produced by a digester or gasification facility that are used as animal bedding or utilized otherwise, are managed prior to their use in an environmentally safe manner.

*Comment:* [329 IAC 11.5-1-2](#) Applicability

Our reading of the purpose section is that this regulation is meant to apply to energy production which uses biomass as well as activities which utilize biomass recovery for other purposes. It is unclear what those other recovery activities may be, and we are concerned that including such activities in this rule will negatively impact the requirements for biomass energy production. We suggest that this rule be clarified in this regard and that energy production remain the focus of this rule. (IFB and IPAC)

*Response:* The rule was intended for processing of biomass and appropriate feedstock through a digester or gasifier to recover energy or a reusable product so indeed energy production is a key element of this rulemaking. However, there are some facilities that are recovering material such as animal bedding or biodiesel.

*Comment:* [329 IAC 11.5-2-2](#) "Appropriate feedstock" defined

It appears that the inclusion of the term "appropriate feedstock" in this rule is meant to address those situations where it is unclear if a product would qualify as biomass by the statutory definition as well as to allow categories of materials which are clearly solid waste and may not be viewed as a traditional clean biomass source. We appreciate the energy value of many of those products and agree that their use should be allowed in digesters and gasifiers. Our concern is that [IC 13-20-10.5](#) clearly is directed toward facilities that process only biomass. A liberal interpretation of "biomass" will allow many of the materials which have been proposed to be used in biomass anaerobic digesters and gasifiers to serve as energy sources. Nonetheless, the inclusion of industrial waste products raises concern that this rule will require more onerous oversight and testing of materials than is necessary when clean biomass is being utilized.

We recognize that industrial waste products and even household garbage may be beneficial for energy production. However, the biomass products listed in the statute are generally clean products which are not byproducts of industrial processes. Industrial waste products are often chemically treated and may trigger additional regulatory oversight. It is our belief that the General Assembly meant to establish a process to promote renewable energy by limiting exposure to strenuous regulatory requirements for those that choose to use biomass. That is not to say that the use of industrial waste products and sewage sludge should be discouraged. Nonetheless, by commingling those products in the energy production process and in this rule, the incentive for energy production from clean biomass products may be reduced. We suggest that this rule be specifically limited to clean biomass products by utilizing a liberal interpretation of the statutory definition at [IC 13-11-2-16.6](#). The definition for "appropriate feedstock" should be deleted, and throughout this rule, all instances where "appropriate feedstock" is used to modify "biomass" should be eliminated. (IFB and IPAC)

*Response:* The department is proposing a rule that is broader in scope to accommodate the regulated communities' request to process appropriate feedstock, such as sewage treatment sludge and paper pulp, which was not included in the statutory definition of biomass. The department has attempted to write a rule that streamlines and standardizes all the requirements for biomass digesters and gasification facilities. There currently exists a biomass digester that is processing animal manure that received approval from IDEM to process food waste such as marshmallows. Addressing both types of materials, "biomass" and "appropriate feedstock", in one

rule provides the flexibility to require only one application. A new section will be added under Rule 3, Exclusions, to clarify that a separate registration is not needed for digesters and gasifiers permitted as a waste management system under [327 IAC 19-13-2](#). However, such systems must meet the regulatory requirements established under this rule.

*Comment:* Additionally, we suggest that industrial waste products be included in the rule for alternative fuel sources, LSA Document #09-194. (IFB and IPAC)

*Response:* IDEM does include industrial waste products in the alternative fuel sources, LSA Document #09-194, which is for burning. This rule is processing that is digestion or gasification.

*Comment:* [329 IAC 11.5-2-7](#) "Contingency action plan" defined

First, the facilities governed by this proposed rule would not be processing solid waste; they would be processing biomass. Therefore, the reference to solid waste should be replaced with biomass. Also, we believe that the definition of contingency action plan should be limited to the requirement to write a plan without specifying that a special plan is activated if biomass cannot be processed for a period of greater than twenty-four hours. A period of twenty-four hours may be completely insignificant depending on the design and operating procedure associated with a particular facility. (IFB and IPAC)

*Response:* IDEM has changed the term "solid waste" to "biomass and appropriate feedstock". The period of twenty four (24) hours has been extended to seventy-two (72) hours. In addition, the appropriate contingency actions will likely vary depending on the material utilized in the digester or gasifier.

*Comment:* [329 IAC 11.5-2-11](#) "Generator" defined

The definition of "generator" refers to someone who "discards biomass". We believe that the definition indicates a misunderstanding of the production of biomass and its use. Because of its energy values, biomass is generally specifically harvested for its energy production or it is a co-product from crop, timber, or livestock production. (IFB and IPAC)

*Response:* IDEM agrees that biomass does have an energy value but this term is used in the rule to prohibit speculative accumulation or illegal disposal. A generator must be held responsible for the proper environmental management of any materials that is processed at the facility.

*Comment:* [329 IAC 11.5-2-16](#) "Registered facility" defined

As noted in other sections of this rule, we question the inclusion of "recycling" as well as "reuse or recovery" as processes regulated under this rule. Additionally, we believe this rule should clarify that storage of manure in a satellite manure storage structure as provided for by the General Assembly in [IC 13-18-10.5](#) is an activity not regulated under this rule. (IFB and IPAC)

*Response:* IDEM agrees that the term "recycling" should be removed and manure in a satellite manure storage structure is an activity not regulated under this rule.

*Comment:* [329 IAC 11.5-2-18](#) "Residue" defined

We suggest that "residue" is simply material left over after energy production. "Discarded" should be removed from the definition. (IFB and IPAC)

*Response:* IDEM considers "residue" to be a left over material that has no further use and is therefore "discarded."

*Comment:* [329 IAC 11.5-2-21](#) "Waste determination" defined

We suggest that if this rule were limited to the use of clean biomass products that concerns with waste determinations could be largely eliminated. (IFB and IPAC)

*Response:* This definition applies to facilities that take solid waste in addition to facilities that take only biomass. A waste determination for biomass and appropriate feedstock can be very easily made by using generator knowledge, a simple confirmation that it is uncontaminated.

*Comment:* [329 IAC 11.5-3-1](#) Exclusions

There are several activities which are excluded from regulation under this article, some of which are regulated under solid waste regulations and other activities which are not regulated. [IC 13-20-10.5-1](#) (b) states that confined feeding operations which are constructing or expanding a biomass anaerobic digester or biomass gasifier are required to obtain their approval through the confined feeding rules. Given that statement in the law, we suggest that holders of confined feeding approvals or CAFO NPDES permits should be excluded from regulation under this article. (IFB and IPAC)

*Response:* A new section will be added under Rule 3, Exclusions, to clarify that a separate registration is not needed for digesters and gasifiers permitted as a waste management system under [327 IAC 19-13-2](#). However, such systems must meet the regulatory requirements established under this rule.

*Comment:* [329 IAC 11.5-4-1](#) Registration

The legislation passed by the General Assembly assumed that the products being used for energy production would be biomass products which are generally free of pollutants. The provision in (g)(6) implies that something other than simple awareness of the biomass is needed to determine the makeup of the biomass. Biomass that originates from a livestock facility or which was harvested in a field or forest should need no additional testing.

Also, the reference to "waste" and "waste streams" is an inaccurate characterization of this material since it is being harvested for energy production. Similar to the discussion above, we suggest that "waste processing" found

in (g)(15) be restated as "biomass processing" since much of the biomass used could not be considered "waste" because it is harvested for energy production. (IFB and IPAC)

*Response:* Screening for uncontaminated biomass and appropriate feedstock is necessary to confirm the material acceptable to process. Such confirmations, however, do not necessarily require testing to comply with the requirement. "Waste" and "waste stream" has been changed to "biomass and appropriate feedstock" in this subsection.

*Comment:* [329 IAC 11.5-4-2](#) Transition for submitting registration

We suggest that for clarity, the phrase "with existing facilities" should be added in the first line after "operators". The statement that "these facilities may continue to operate unless the registration is denied" indicates that unless the biomass facility is successful in registering under this proposed rule it must cease operation. We assume that if the registration were not successful that the facility could be operated under an alternative solid waste program. (IFB and IPAC)

*Response:* There are several reasons why a registration could be denied; however, IDEM staff are willing to work with the biomass digester or gasification facility to obtain a registration. If the facility wants to process a solid waste that is not eligible to be processed under this registration then a solid waste processing facility permit may be required. As the commentors suggested, "of existing facilities" was added after the words "All owners or operators".

*Comment:* [329 IAC 11.5-5-1](#) Storage requirements for biomass and appropriate feedstock

Storage requirements for biomass depend on the type of biomass. All biomass may not need to stay dry, for instance. Outdoor storage of certain biomass may be appropriate. A weather tight building may be practical for some materials but not others. We agree that storage of biomass should not threaten human health and the environment. The examples given in this section should be classified as "examples of adequate storage depending on the type of biomass stored." In (b), we question whether this rule should be referencing the reuse or recycling of biomass. This would seem to expand it beyond the General Assembly's requirement that biomass digesters and gasifiers be regulated. Additionally, much of the biomass will be harvested for energy production so classifying it as reuse or recycling is inappropriate. If the intent is for this rule to address alternative uses of biomass other than for energy production, that should be clearly stated. However, we believe that this rule should maintain separation between energy production processes and other uses of biomass or industrial waste. Otherwise, it would appear that the land application of forages and plant material on the farm or the use of corn stover as bedding would not be allowed until registration is completed. To the extent that this language is meant to require the identification of the use of the residue after biomass processing is complete, it is an appropriate provision to include in the rule. (IFB and IPAC)

*Response:* If other storage is warranted then it can be approved by the commissioner. Flexibility has been built into this rule so that owners and operators can propose other storage of biomass and appropriate feedstock.

*Comment:* [329 IAC 11.5-6-1](#) Operational requirements for processing of biomass and appropriate feedstock.

In the proposed rule for industrial process waste or commercial solid waste as an alternative fuel source (LSA Document #09-194), a provision is made in [329 IAC 11.7-6-1\(a\)\(1\)](#) that facilities which process only "uncontaminated wood or plastic" are not required to use a pad made of concrete or asphalt for processing. However, in this proposed rule for biomass, there is a requirement in 11.5-6-1(a)(2) that the processing take place on an impervious surface to contain spills. We do not understand the distinction made in the two proposed rules, especially considering that the majority of the products which are biomass are dry plant material such as wood, grasses, or corn stover. We suggest that the language be amended to clarify that any surface which is capable of containing a spill must be utilized. (IFB and IPAC)

*Response:* IDEM agrees that the registration rule should be consistent so the exception for processing uncontaminated wood on a pad was added to the biomass rules.

*Comment:* In (a)(7), the proposed rule once again refers to monitoring of incoming waste. As previously noted, this rule should be limited to biomass and should more appropriately refer to the monitoring of "incoming biomass", rather than "incoming waste" to make sure it can be received and processed. Additionally, it needs to be clear that this type of monitoring is not a testing requirement. The goal of this monitoring requirement should be to ensure that incoming material is indeed biomass. This can be accomplished with an awareness of an origin or the material coupled with a visual inspection. (IFB and IPAC)

*Response:* Screening for uncontaminated biomass and appropriate feedstock is necessary to confirm the material acceptable to process. "Waste" and "waste stream" has been changed to "biomass and appropriate feedstock" in this subsection. A waste determination for biomass and appropriate feedstock can be very easily made by using generator knowledge, a simple confirmation that it is uncontaminated.

*Comment:* In (b), the proposed rule requires that structures which store biomass must be closed at the end of the day if they are flammable, subject to blowing, a vector attraction, or noxious odor producing. It is possible that biomass such as that made of plant material could be stored outdoors or under a roof to protect it from rainfall. It is unclear how one would determine what is a noxious-odor-producing biomass. That would seem to be a subjective standard, and it is possible that some individuals may suggest that lagoons could not be used for storage of manure. It is imperative that the rule be clear on what is required so that it can be applied consistently

and with little concern of legal challenges based upon how to interpret the rule. (IFB and IPAC)

*Response:* IDEM agrees and has deleted "(1) flammable" and "(4) noxious odor –producing" from the requirements. The rules must be clear and consistently applied. Lagoons are not a covered storage container.

*Comment:* We agree with the statement in that hazardous wastes cannot be processed at facilities which do not have the appropriate approvals from IDEM. However, a facility should not have a registration under this rule to begin with unless it is processing only biomass. It must be made clear throughout this rule that these regulations govern facilities utilizing only biomass, making (e) in this section unnecessary. (IFB and IPAC)

*Response:* IDEM agrees and has clarified this by deleting "waste" and "solid waste" and replacing "biomass and appropriate feedstock" throughout the rule".

*Comment:* In (g), there is a requirement that the facilities for biomass storage and processing must be secure, such as with a locked door or fence with a locked gate. This requirement seems to be excessive when the products being discussed are biomass, which are products grown in nature and which can be safely handled and land applied without harming human health. (IFB and IPAC)

*Response:* Unauthorized access to the facility may cause serious damage to the digester or gasifier and result in personal or environmental harm. An allowance for twenty-four (24) hour security has been added.

*Comment:* The requirement in (h) that the land, vehicles, and containers must be maintained clean is a subjective standard which may be difficult to comply with. Biomass anaerobic digestion and gasification facilities will largely be in rural areas and using products which by their nature are subject to producing dust. We agree that areas should be generally free of contaminants, but we are concerned that this provision is subjective and may be used to wield unwarranted control over the facility. (IFB and IPAC)

*Response:* IDEM disagrees that these facilities will only be in rural areas and that the dust produced is unarmful. Maintaining good housekeeping practice is often a requirement in environmental regulations and IDEM has enforcement discretion over insignificant amounts of dirt and dust that is common at this type of facilities.

*Comment:* [329 IAC 11.5-7-1](#) Disposal and end use

One of the concerns with running a program through a department which focuses on solid waste is that terms of art will be used to categorize activities in such a manner that safe and legitimate practices receive a bad connotation. Section 7 of this rule would be one of those instances in that it talks about "disposal" of biomass and residue from the process. Furthering the concern on how biomass is characterized is that the proposed rule proceeds to identify regulatory requirements for disposal of hazardous wastes, PCBs, solid waste, incinerators, and used oil. Clean biomass does not exhibit the characteristics of the contaminants regulated under the various regulatory schemes mentioned in [329 IAC 11.5-7-1](#). Furthermore, the residue from energy production will likely not be disposed of, but rather will be used for animal feed or as a fertilizer for crop production. Given this, we believe that it would be better to discuss the use of biomass residue and make clear that the land application or feeding of biomass residue is not subject to additional regulation. (IFB and IPAC)

*Response:* IDEM understands that proper biomass processing will not result in the generation of waste that will need to be disposed. However, the residue subject to disposal or any biomass and appropriate feedstock remaining after a facility has ceased operation will need to be disposed, land applied, or beneficially reused.

*Comment:* [329 IAC 11.5-8-1](#) Closure

In (b), we suggest that the language should be amended to show that all biomass and residue should be removed "to the extent practical." This is the language which IDEM has proposed in the CFO rule and recognizes that it may be impossible to remove all of the biomass. Further, when a lagoon is decommissioned, there may be a value in keeping some biomass in the lagoon for other uses, such as for a pond. We are concerned with the language in (c) referring to contaminants which are above RISC industrial levels. (IFB and IPAC)

*Response:* If the CFO/CAFO permit allows the storage of manure after a facility is closed then it would be allowed under this rule, however, other appropriate feedstock and residues must be removed from the facility and properly disposed. It would seem appropriate to evaluate a facility at closure to assure that no contaminants remain at a level that would represent an unacceptable risk to human health and the environment.

*Comment:* We disagree with the requirement for financial assurance for biomass digesters and gasifiers. We do not believe that digesters or gasifiers which utilize biomass are a significant risk of harm to human health and the environment.

Moreover, when comparing this proposed financial assurance requirement to that in the proposed rule for industrial process waste or commercial solid waste as an alternative fuel source, it appears that operations using clean biomass sources are being required to post a greater bond than those facilities that are using actual industrial process solid waste which would be more inclined to contain harmful pollutants. Per the proposed language, those operations utilizing biomass must have a bond amount equal to \$50 per ton based on the maximum tons of biomass or residue which may be stored at any one time. In the alternative fuel source rule, the bond is based upon the maximum amount of alternative fuel stored at any one time which is over 10,000 tons at the rate of \$20 per ton. In essence, facilities which are using industrial process waste will pay \$30 less per ton and don't have to provide assurance for the first 10,000 tons of waste. This does not appear to be justifiable given the energy sources being used and the much greater risk of harm to human health and the environment from sources other than biomass.

We are also concerned with the provision in (f) that operations which fail to obtain financial assurance shall be deemed to endanger human health or the environment. While it may be grounds for revoking a registration, it can hardly be said that it is an endangerment. If this were the law, the mere construction of any facility which requires IDEM approval could be an endangerment to human health and the environment because there could be an accident leading to the emission of a harmful pollutant. We do not believe this type of scenario could or should be supported by the law. (IFB and IPAC)

*Response:* Facilities that have a confined feeding operation (CFO) approval or a concentrated animal feeding operation (CAFO) permit and that are processing biomass are exempt from the requirement to obtain financial assurance on any biomass. IDEM agrees and has changed the rule to \$30 per ton of biomass, appropriate feedstock, and residue on site at any one time.

IDEM agrees and has deleted (2) endanger human health and the environment.

## **SUMMARY/RESPONSE TO COMMENTS RECEIVED AT THE FIRST PUBLIC HEARING**

On February 21, 2012, the Solid Waste Management Board (board) conducted the first public hearing/board meeting concerning the development of amendments to rules at [329 IAC 11-3](#) and new rules at [329 IAC 11.5](#). Comments were made by the following parties:

Justin T. Schneider, Indiana Farm Bureau (IFB)

Josh Trenary, Indiana Pork Advocacy Coalition (IPAC)

Following is a summary of the comments received and IDEM's responses thereto.

*Comment:* Mr. Chairman, members of the Board. My name is Justin Schneider. I'm here today on behalf of the members of Indiana Farm Bureau, Incorporated. We are working on this issue in conjunction with the Indiana Pork Advocacy Coalition and Josh Trenary, who you will hear from this morning or this afternoon, talking about some of the more detailed provisions. We would like to thank IDEM for considering our previous comments and addressing many of the concerns outlined in that document. What we have here are written comments for you explaining our concerns in detail of this rule proposal. We have been engaged in providing comments to the agency for the approximate three years now that they've been working on these rules, which were also first noticed along with the mobile home salvaging operations and the industrial waste products. And in that time, we've had some concerns with the direction that the rule is going with respect to the use of biomass, and so approximately a year and a half ago we had the opportunity to work with the agency to identify the concerns, which I believe are valid, wanting to know where these processes are being taken place. How do you address issues where you have someone who wants to construct a digester that's not part of the CAFO, or someone who is going to bring in biomass products from another farm or location to feed that digester. (IFB)

*Response:* This rulemaking is proposing that all biomass anaerobic digesters and biomass gasification facilities obtain a cost-free registration that has minimal requirements. IDEM (Indiana Department of Environmental Management) has continued to work with commenters, the regulated community, and interested parties. A meeting to listen to comments and discuss the rule has been scheduled for June 7, 2012, at 1:30 p.m., in Conference Center Room B, Indiana Government Center South, Indianapolis, Indiana.

*Comment:* The thing that became evident, though, is that in not all cases are we dealing with solid waste. In some of these cases, this is going to be biomass streams that are produced for the purpose of energy production, and then they are not solid waste products. So, there needed to be a way that was different than what had originally been proposed to address this. So, House Enrolled Act 1187 was passed by the General Assembly last year, establishing this procedure for the agency to require the registration for people to seek the prior approval before constructing these facilities, and we worked with IDEM in making sure that 1187 addressed the concerns, worked with members of the General Assembly. I think the thing that became evident to us throughout the process, from the members of the General Assembly, they like the idea of using biomass. They want to see digesters put in place and they want to have a process that is streamlined and efficient in order to help incentivize that.

In fact, we remain concerned that this rule is being implemented in a manner which does not follow the intent of the General Assembly. On a positive note, the rule requires registration rather than the more rigorous permitting scheme applied to solid waste processing facilities. In that regard, it is clearly following the intent of the General Assembly. (IFB)

*Response:* The department will make with the General Assembly's approach to Biomass Digester and Biomass Gasification facility registration and is putting in all statutory requirements and definitions.

*Comment:* And we have expressed our concerns to the agency, as Ms. West mentioned. We have met with the agency to express concerns over some specific provisions. Some changes were made based upon our previous comments. What I was referring to with all of this is waste products and solid waste, which, if it's a dedicated biomass stream, it's not going to fall into that. We recognize that this rule is meant by IDEM to be all encompassing in that it addresses facilities that utilized only clean biomass products in addition to those which receive products such as food processing by-products and animal fats from rendering and cooking and industrial waste products such as paper pulp, sewage sludge, and pallets. We are generally supportive of the proposition of combining the regulatory scheme for all of these products into one rule. But in doing so, the regulations should not

be so onerous as to be nonsensical with respect to concerns raised by clean biomass, which is grown for its use as a dedicated energy source. (IFB)

*Response:* The department has made additional changes in the proposed rule to help alleviate concerns.

*Comment:* We do want to see this rule preliminarily adopted so it can keep moving forward, because we need to get this issue addressed, because we have numerous facilities that would like to locate in Indiana. The concern is that we don't put in place such an onerous process that it makes it difficult or financially infeasible to use clean sources of biomass as the feedstock for these facilities. (IFB)

*Response:* The department through this rulemaking is encouraging the use of biomass and the establishment of new facilities in Indiana through the simplified registration process.

*Comment:* Some facilities will bring in other waste products from food processing, rendering, those sorts of things. We understand that and that there are concerns with making sure that those products are clean and safe, but when it's biomass that's being used, manure, other plant materials, there don't need to be onerous testing procedures. Land application should be allowed. There are just certain things that need to be clarified in the rule to make sure it's clear what can be done and what the requirements are on those facilities. (IFB)

*Response:* This rulemaking proposes to clarify and the rule and simplify the requirements. This rulemaking does not forbid land application; however, land application approvals are done under [327 IAC 6.1](#).

*Comment:* Mayor Graham, members of the Committee. My name is Josh Trenary, from the Indiana Pork Advocacy Coalition. Justin's kind of laid out the generalities today, and we have submitted detailed comments for the sections of the rule that we still have some concerns with, but I'm going to kind of hit the high points, kind of section by section as we go through here. First of all, my membership does support this rule getting preliminarily adopted today. We're just hoping that with some of the reservations we have left, we can continue working with the agency to iron those out. (IPAC)

*Response:* The department is continuing to work with interested parties to finalize a rule that is supported by all interested parties, is clear and concise, and has reasonable standards.

*Comment:* First of all, we can talk about the purpose and applicability sections together. Both of these kind of suffer from the same problem, in our mind, and that's that this rule should only be for biomass energy production, so other terminology like reuse of biomass or other recovery activities shouldn't be included in this rule. This one was just designed to separate out things that we're going to process, process biomass as energy. The language in the purpose section is unclear. First, we question whether this is the appropriate rule to discuss the separate use of biomass for reuse. That being said, we suggest that the subsections be broken into subparts to clarify the intent of the rule. Our reading of the applicability section is that this regulation is meant to apply to energy production which uses biomass as well as activities which utilize biomass recover for other purposes. It is unclear what those other recovery activities may be, and we are concerned that including such activities in this rule will negatively impact the requirements for biomass energy production. We suggest that this rule be clarified in this regard and that energy production be the focus of this rule. (IPAC)

*Response:* IDEM would like for the rulemaking to be all-encompassing, in that it addresses facilities that utilize only clean biomass products in addition to those which receive appropriate feedstock such as food processing by-products and animal fats from rendering and cooking, industrial waste products such as paper pulp, sewage sludge, and pallets, and biomass reuse. Rulemaking changes will break subsections into subdivisions, clauses or items to clarify intent.

*Comment:* Appropriate feedstock, I think the definition here of "appropriate feedstock" is --I think a lot of the problems in this rule in other sections stem from this concept of appropriate feedstock, because this terminology here is what is bringing in other kinds of materials that shouldn't be within the purview of this rule. Industrial waste products and things like that should come in under the solid waste program and not here. And so, in other sections in the rule, when we complain that certain requirements are too onerous as far as testing requirements and other things, it's mainly because this rule is trying to cover things that shouldn't be in this rule because they're not classified as biomass; they're a solid waste product. And so, we think that for the materials that are included in the definition of appropriate feedstock that could be considered under the statutory definition of biomass, those could be taken care of that way. The other materials, such as the industrial waste, paper pulp, sewage, sludge, things like that, they shouldn't be considered by this rule at all. It's a different category altogether. We suggest that industrial waste products be included in the rule for alternative fuel sources under LSA #09-194. (IPAC)

*Response:* The statutory definition of "biomass" cannot be changed so other solid wastes are added under the definition of "appropriate feedstock". This Biomass Rule was the outcome of several requests from the regulated community to encompass not only biomass but other solid wastes in a registration for biomass digesters and gasification facilities and not require a solid waste processing facility permit.

*Comment:* [329 IAC 11.5-2-7](#) "Contingency Action Plan" A requirement for creating a contingency plan makes sense, but part of each individual facility's plan should be the time where the plan must be activated. A blanket requirement of 72 hours may not make sense depending on the design and operating procedures associated with a particular facility. (IPAC)

*Response:* The department believes that a contingency plan should be activated at 72 hours; however, the steps of the plan can be crafted by the registering facility to fit the facility needs and be approved with the

registration.

*Comment:* [329 IAC 11.5-2-11](#) "Generator" The definition of "generator" refers to someone who "discards biomass". We believe that this definition indicates a misunderstanding of the production of biomass and its use. Because of its energy value, biomass is generally specifically harvested for its use in energy production or it is a co-product from harvesting a crop or timber, or livestock production. (IPAC)

*Response:* The definition of "generator" will be deleted.

*Comment:* One other point I wanted to hit, after we met with IDEM a few weeks ago and discussed a little bit about the residue section, 11.5-2-18 is what I'm jumping down to, IDEM's intent was kind of clarified in that meeting. It seemed like the definition of "residue" was to cover --was intended to cover the types of materials that would be left over in the event that a digester facility ceased operation and some sort of cleanup needed to happen, so in the event of a closure, you'd have to remove the residue. I think that's okay. I just think we need to clarify that that's what was intended by the definition of "residue," and it doesn't, and also to understand that if that is IDEM's intent, that the definition of "residue" doesn't account for everything that's going to be removed from this facility after the energy capturing process is completed. There is going to be other byproducts just by the general operation of the facility as an ongoing entity. We suggest that "residue" be defined as unused biomass or appropriate feedstock that must be removed in the event the digestion facility is unable to process it. (IPAC)

*Response:* IDEM agrees and will revise the definition of "residue".

*Comment:* So, further on down here, we're going well, let's just go to that now. We're proposing a new definition. On the next page of my comments there you can see it. You can call it whatever you want. I called it process byproducts here, because the term "residue" is about cleaning up in the event of a closure, and then there's a disposal section in the rule to govern how those materials will be cleaned up. But none of that seems to address the byproducts just from the ongoing operation of the digester, and so I think we need a way to define that, to describe what kind of material we're dealing with, just the leftovers after that process that then need to be land applied or something else, maybe further refined into another fertilizer product. (IPAC)

*Response:* IDEM agrees and will add a definition for "byproduct". "Byproduct" is any material that has been processed through a biomass digester or biomass gasification facility and is reused.

*Comment:* [329 IAC 11.5-2-21](#) "Waste determination" We suggest that if this rule were limited to the use of clean biomass products that concerns with waste determination could be largely eliminated. (IPAC)

*Response:* This definition applies to facilities that take solid waste in addition to facilities that take only biomass. A waste determination for biomass and appropriate feedstock can be very easily made by using generator knowledge, a simple confirmation that the biomass and feedstock are uncontaminated.

*Comment:* I want to move on to registration, 11.5-4-1. Again, this is the situation where if this was just narrowly tailored -- if this rule was just narrowly tailored to biomass, this part wouldn't be a problem. If we're just worried about biomass here, and biomass products are typically very innocuous, then you wouldn't need any other kind of requirements to determine what the makeup of the material is. You just know where it comes from and a visual appraisal can tell you that it's biomass, and that should be the extent of it. It's when you start throwing other materials in that you have to worry. The provision in (g)(6) implies that something other than simple awareness of the origination of the biomass is needed to determine the makeup of the biomass. Biomass that originates from a livestock facility or which is harvested in a field or forest should not need additional testing. (IPAC)

*Response:* IDEM and the regulated community agree that this rule should encompass biomass, any appropriate feedstock, byproduct, and residue. IDEM agrees and will remove the testing requirements in (g)(6).

*Comment:* The statement that "these facilities may continue to operate unless the registration is denied" should be modified to read ". . . unless the registration is denied and registration under an alternative solid waste program is not possible. (IPAC)

*Response:* The Alternative Fuel registration under [329 IAC 11.7](#) is for boilers and incinerators and not biomass digesters and gasification units. This means that there are no other solid waste registrations that a biomass digester and biomass gasification units could qualify to register under.

*Comment:* I'm going to talk about storage requirements, 11.5-5-1. There's kind of some generalities here, and some of these storage requirements here seem a bit stringent for the types of materials we'd be talking about. These types of storage requirements might be good examples for something that could pose harm from runoff or leachate or something like that, but most of these materials wouldn't -- you know, there should be a little leeway on how we contain those.

Storage requirements for biomass depend on the type of biomass. All biomass may not need to stay dry, for instance. Outdoor storage of certain biomass may be appropriate. A weather tight building may be practical for some materials but not others.

We agree that storage of biomass should not threaten human health and the environment. The examples given in this section should be classified as "examples of adequate storage depending on the type of biomass stored." (IPAC)

*Response:* IDEM agrees and will revise the section to delete prescribed storage for biomass.

*Comment:* Operational requirements, 11.5-6-1, again, I've already said it several times, but generally

biomass doesn't pose leaching or runoff concern. The type of materials we're talking about, again, are fairly innocuous, so we suggest that the exemption here for processing on an impervious pad be extended to other dry sources of biomass that don't pose these types of threats.

Our previous comments on this section discussed the inconsistency between this rule and the alternative fuel source rule (LSA #09-194). This section has been changed to be more consistent with that rule. However, we suggest that the exemptions from processing on an impervious pad be expanded to include other dry sources of biomass because they do not pose a threat of contamination through leachate or runoff. (IPAC)

*Response:* IDEM agrees and will add "dry biomass" to the list of materials that do not have to be processed on an impervious pad.

*Comment:* Again, just kind of touching on the same requirement (a)(7) under 11.5-6-1, the biomass shouldn't need additional testing. If you know where it comes from, you do a visual inspection, you ought to be able to see that it is indeed biomass and the risk of other pollutants in the biomass is relatively low. (IPAC)

*Response:* IDEM agrees and will accept generator knowledge in lieu of testing.

*Comment:* This rule also proposes some other storage requirements based on IDEM's blowing or vector attraction or something like that, it -- there's lots biomass that's just made up of plant material that's relatively innocuous. We shouldn't have requirements on making sure those items don't blow. There's not very -- there's very little risk of harm there. It is possible that biomass such as that made of plant material could be stored outdoors or under a roof to protect it from rainfall. Indeed, much of the plant based biomass sources will generally be found in a forest or on agricultural land as residue from harvesting activities. It may well be that a facility will enclose the materials in such a building as proposed but that should not be a requirement where exposure to the elements poses little risk of harm.

In (g), there is a requirement that the facilities for biomass storage and processing must be secured, such as with a locked door or fence with a locked gate. This requirement is excessive when the products being discussed are biomass, which are products grown in nature and that can be safely handled and land applied without harming human health or the environment.

The requirement in (h) that the land, building, vehicles, and containers must be maintained clean is a subjective standard which may be difficult to comply with, Biomass anaerobic digestion and gasification facilities will largely be in rural areas and using products which by their nature are subject to producing dust. We agree that areas should be generally free of contaminants, but we are concerned that this provision is subjective and may be used to wield unwarranted control over a facility. (IPAC)

*Response:* IDEM agrees and will add "within a town or city limits" to (g). Changes were made in (h) to clarify storage standards.

*Comment:* Jump down to disposal and end use, and I kind of covered -- this is 11.5-7-1, and I kind of covered this in the discussion of residue, but the disposal section, as we read it in the rule and as we discussed with IDEM a few weeks ago, is to be used in the event of a closure, to govern the disposal of those materials that are leftover once a facility ceases operation. Since that is the only thing that that covers, at least the way we understand it after meeting with IDEM, we feel like there should be a new section established governing the use of the process byproducts, like I was discussing before, the effluent or whatever you want to call it leftover just from the ongoing operation of a facility. There should be a provision in the rule providing a way for the operator to land apply that or further refine it into other fertilizing materials. 11.5-8-1, that's closure. (IPAC)

*Response:* IDEM agrees and will revise the rule to incorporate your suggestions.

*Comment:* There's some references to contaminants above the RISC levels. Again, if this was just -- if this was just refined down to biomass, then that shouldn't be a problem. (IPAC)

*Response:* IDEM agrees and will remove the references to "RISC levels".

*Comment:* IDEM has not contemplated the use of byproducts of the digestion or gasification process other than disposing of leftover materials in the event of a closure. A new section must be created to make allowances for the land application or further processing of process byproducts. (IPAC)

*Response:* IDEM agrees and the closure section will include management of byproducts approved by IDEM under applicable rules.

*Comment:* In [329 IAC 11.5-8-1](#) Closure, in (b), we suggest that the language should be amended to show that all process byproducts and residue should be removed to the "to the extent practical." This is the language which IDEM has utilized in the CFO rule and recognizes that it may be impossible to remove all of these materials. Further, when a lagoon is decommissioned, there may be value in keeping some biomass in the lagoon for other uses, such as for a pond.

We are concerned with the language in (c) referring to contaminants which are above RISC industrial levels. As previously noted, biomass is a clean product and should not carry with it a concern of contaminants. (IPAC)

*Response:* IDEM agrees and will remove the reference to "RISC levels". IDEM believes the phrase "to the extent possible" is not an ascertainable standard that can be approved by the Attorney General. The language has been changed to accommodate closure under other permits or approvals, as applicable. The closed site must be cleaned of biomass, appropriate feedstock, byproducts and residue.

*Comment:* Financial assurance, 11.5-9-1, we have some serious problems with this section, because if you

compare the type of financial assurance being proposed here with the type of financial assurance proposed in the rules for industrial process waste, this one's far more stringent. It starts having to cover it for \$30 per ton from the first ton, where the industrial process waste that is being considered in another rulemaking parallel to this, you get the first 10,000 tons of waste at the facility before that \$30 per ton kicks in. I don't see any justification there. When the materials being dealt with or supposed to be being dealt with in this rule are more innocuous than the industrial waste, why is the -- why is the financial assurance requirement that much more strict? This does not appear to be justifiable given the energy sources being used and the much greater risk of harm to human health and the environment from sources other than biomass.

We disagree with the requirement for financial assurance for biomass digesters and gasifiers. We do not believe that digesters or gasifiers which utilize biomass are a significant risk of harm to human health or the environment.

Moreover, when comparing this proposed financial assurance requirement to that in the propose rule for industrial process waste or commercial solid waste as an alternative fuel source, it appears that operations using clean biomass sources are being required to post a greater bond than those facilities that are using actual industrial process solid waste which would be more inclined to contain harmful pollutants. (IPAC)

*Response:* IDEM justifies this financial assurance requirement based on the nature of biomass, appropriate feedstock, byproducts and residue, which can degrade and create a concentrated leachate that must be prevented from entering Indiana water bodies through run-off.

[329 IAC 11-3-1](#); [329 IAC 11-17](#); [329 IAC 11-18](#); [329 IAC 11-19](#); [329 IAC 11-20](#); [329 IAC 11.5](#)

SECTION 1. [329 IAC 11-3-1](#) IS AMENDED TO READ AS FOLLOWS:

**[329 IAC 11-3-1](#) Exclusions; general**

**Authority:** [IC 13-14-8-7](#); [IC 13-15-2-1](#); [IC 13-19-3-1](#)

**Affected:** [IC 13-11-2-245](#); [IC 13-11-2-266](#); [IC 13-18-10](#); [IC 13-19-3-3](#); [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 1. The following solid waste management activities are not subject to the provisions of this article:

(1) Processing and disposing of only uncontaminated:

- (A) rocks;
- (B) bricks;
- (C) concrete;
- (D) road demolition waste materials; or
- (E) dirt.

(2) Land application activities regulated by [327 IAC 6.1](#) and [327 IAC 7](#).

(3) Confined feeding ~~control~~ **operation** activities regulated by [IC 13-18-10](#).

(4) Wastewater discharge activities regulated by [327 IAC 5](#).

(5) Processing of waste when the waste, other than tires, has been segregated from the general MSW stream prior to arrival at a processing facility. To qualify for exclusion from this article, the facility must do the following:

- (A) In the regular course of business, receive distinct and recognizable solid waste items that do not require substantial further processing. Substantial further processing includes any thermal or chemical treatment of the waste, as well as physical processing such as shredding, breaking, compacting, or mixing with other materials or waste beyond the processing needed to render the waste more amenable for transport.
- (B) Return those items for reuse in manufacturing including any intermediate processing steps before being sent for manufacturing.
- (C) Not have more than ten percent (10%) of the solid waste that passes through the facility ultimately taken for final disposal. This is determined by the weight of material passing through the facility in a calendar quarter.

(6) Processing ~~except for incineration~~, of solid waste that takes place at the generating facility.

(7) Processing and disposal of uncontaminated and untreated natural growth solid waste, including the following:

- (A) Tree limbs.
- (B) Stumps.
- (C) Leaves.
- (D) Grass clippings.

(8) The disposal of coal ash, transported by water, into an ash pond that has received a water pollution control facility construction permit under [327 IAC 3](#).

(9) The operation of surface impoundments; however, the final disposal of solid waste in such facilities at the

- end of their operation is subject to approval by the commissioner except as excluded under subdivision (8).
- (10) Uses and disposal of coal waste as exempted from regulation in [IC 13-19-3-3](#).
- (11) The legitimate use of iron and steelmaking slags, including the use as a base for road building, but not including use for land reclamation except as allowed under subdivision (13).
- (12) The legitimate use of foundry sand that has been demonstrated as suitable for restricted waste site Type III under the provisions of [329 IAC 10-9](#), including the use as a base for road building, but not including use for land reclamation except as allowed under subdivision (13).
- (13) Solid waste management activities or legitimate uses of solid waste determined by the commissioner to not pose a threat to public health or the environment.
- (14) Processing or storage of electronic waste or e-waste, which is any solid waste that is the following or has the following component:
- (A) A circuit board, including a shredded circuit board.
  - (B) A diode.
  - (C) A CRT.
  - (D) A computer.
  - (E) An electronic device.

E-waste does not include vehicles, as defined by [IC 13-11-2-245](#), or white goods, as defined by [IC 13-11-2-266](#). Electronic waste is regulated under [329 IAC 16](#) and must comply with all applicable standards and requirements under [329 IAC 16](#).

(15) The transfer of closed waste containers meeting the following criteria where the solid waste is not removed from the container:

- (A) The container remains closed.
- (B) The solid waste in the container is only nonmunicipal solid waste.
- (C) The solid waste is stored in the container for not more than ten (10) days.

**(16) Biomass anaerobic digestion facilities and biomass gasification facilities that are registered under [329 IAC 11.5](#).**

**(17) Any mobile home salvaging operation registered under [329 IAC 11.6](#).**

**(18) Any facility that uses industrial process waste or commercial waste as an alternative fuel source and is registered under [329 IAC 11.7](#).**

**(19) Crematoriums for human and animal remains.**

**(20) Burning engineered wood waste as a fuel. As used in this subdivision, "engineered wood", also called composite wood or man-made wood, includes a range of derivative wood products that are manufactured by binding together the strands, particles, fibers, or veneers.**

*(Solid Waste Management Board; [329 IAC 11-3-1](#); filed Mar 14, 1996, 5:00 p.m.: 19 IR 1933; readopted filed Jan 10, 2001, 3:25 p.m.: 24 IR 1535; errata filed May 8, 2002, 2:01 p.m.: 25 IR 2741; readopted filed May 14, 2007, 1:53 p.m.: [20070523-IR-329070138BFA](#); filed Aug 15, 2007, 10:22 a.m.: [20070912-IR-329050181FRA](#); filed Feb 13, 2008, 1:38 p.m.: [20080312-IR-329050297FRA](#); filed Jun 28, 2010, 2:11 p.m.: [20100728-IR-329060070FRA](#))*

SECTION 2. [329 IAC 11.5](#) IS ADDED TO READ AS FOLLOWS:

## ARTICLE 11.5. BIOMASS ANAEROBIC DIGESTION FACILITIES AND BIOMASS GASIFICATION FACILITIES

### Rule 1. General Provisions

#### [329 IAC 11.5-1-1](#) Purpose

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2-1](#); [IC 36-9-30-35](#)

**Sec. 1. (a) This article regulates biomass anaerobic digestion facilities and biomass gasification facilities through the following:**

- (1) Providing for the registration, including construction and expansion, of facilities storing, reusing, or processing biomass or appropriate feedstock for energy production or reusable treated biomass and appropriate feedstock, such as animal bedding.**
- (2) Providing standards for storing or processing biomass or appropriate feedstock for energy production or reusable treated biomass and appropriate feedstock, such as animal bedding.**
- (3) Providing cleanup and closure standards for facilities that have stored or processed biomass or**

appropriate feedstock for energy production or reusable treated biomass and appropriate feedstock, such as animal bedding.

(4) Providing for financial assurance for the cleanup and closure of facilities that have stored or processed biomass or appropriate feedstock for energy production or reusable treated biomass and appropriate feedstock, such as animal bedding.

(b) This article replaces all solid waste processing standards and permitting requirements under [329 IAC 10](#) and [329 IAC 11](#) for a facility's use of biomass or appropriate feedstock for energy production or reusable treated biomass and appropriate feedstock, such as animal bedding. This article does not apply to disposal or incineration.

(Solid Waste Management Board; [329 IAC 11.5-1-1](#))

#### [329 IAC 11.5-1-2](#) Applicability

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 2. This article applies to a person doing any of the following:

(1) Constructing or expanding a biomass anaerobic digestion facility or a biomass gasification facility for recovery of materials or energy.

(2) Storing biomass or appropriate feedstock for recovery of materials or energy through a biomass anaerobic digestion facility or a biomass gasification facility.

(3) Processing or reusing a biomass or appropriate feedstock for recovery of materials or energy through a biomass anaerobic digestion facility or a biomass gasification facility.

(Solid Waste Management Board; [329 IAC 11.5-1-2](#))

#### [329 IAC 11.5-1-3](#) Severability

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 3. If any provision of this article or the application to any person or circumstance is held invalid, the invalidity shall not affect any other provisions or application of this article that can be given effect without the invalid provision or application.

(Solid Waste Management Board; [329 IAC 11.5-1-3](#))

#### [329 IAC 11.5-1-4](#) Acts prohibited

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 4. No person who owns or operates a facility to which this article applies shall cause or allow the storage, containment, processing, or disposal of biomass and appropriate feedstock in a manner that creates a threat to human health or the environment, including the creation of:

(1) a fire hazard;

(2) a vector attraction;

(3) air, land, or water pollution; or

(4) other contamination.

(Solid Waste Management Board; [329 IAC 11.5-1-4](#))

#### [329 IAC 11.5-1-5](#) Penalties and enforcement

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

**Sec. 5. Penalties for violation of this article shall be governed by [IC 13-14](#) and [IC 13-30](#).**

*(Solid Waste Management Board; [329 IAC 11.5-1-5](#))*

**[329 IAC 11.5-1-6](#) Local approvals**

**Authority:** [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

**Affected:** [IC 13-14](#); [IC 13-30-2](#); [IC 36-9-30](#)

**Sec. 6. The registration that is required by this article does not supersede or replace the need to obtain any local approvals.**

*(Solid Waste Management Board; [329 IAC 11.5-1-6](#))*

**[329 IAC 11.5-1-7](#) Commissioner approval**

**Authority:** [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

**Affected:** [IC 13-14](#); [IC 13-30-2](#); [IC 36-9-30](#)

**Sec. 7. In this article, any approval that is given by the commissioner is based on protection of human health and the environment.**

*(Solid Waste Management Board; [329 IAC 11.5-1-7](#))*

**Rule 2. Definitions**

**[329 IAC 11.5-2-1](#) Definitions**

**Authority:** [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

**Affected:** [IC 13-11-2](#); [IC 13-30-2](#); [IC 36-9-30](#)

**Sec. 1. In addition to the definitions in [IC 13-11-2](#) and [329 IAC 11-2](#) that are applicable, the definitions in this rule apply throughout this article.**

*(Solid Waste Management Board; [329 IAC 11.5-2-1](#))*

**[329 IAC 11.5-2-2](#) "Appropriate feedstock" defined**

**Authority:** [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

**Affected:** [IC 13-30-2](#); [IC 36-9-30](#)

**Sec. 2. "Appropriate feedstock" means a specific solid waste stream that has been segregated from other solid wastes and that can be successfully processed with other solid waste or products for recovery of materials or energy through a biomass anaerobic digestion facility or a biomass gasification facility. Food waste, cooking oil and grease, livestock operation residues, industrial waste, such as paper pulp, sewage sludge, off-spec or unused animal feed that are nonindustrial waste sources, dried distillers grain, food waste from food manufacturing industry and from food services industry, or pallets are examples of common appropriate feedstocks.**

*(Solid Waste Management Board; [329 IAC 11.5-2-2](#))*

**[329 IAC 11.5-2-3](#) "Biomass" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 3. "Biomass" means biological material that is available on a renewable recurring basis and is used as a source of renewable energy, including the following:

- (1) Agricultural crops.
- (2) Agricultural wastes and residues.
- (3) Wood and wood byproducts, including the following:
  - (A) Wood residue.
  - (B) Forest thinning.
  - (C) Mill residue wood.
- (4) Animal wastes and byproducts, including manure.
- (5) Aquatic plants.
- (6) Algae.
- (7) Byproducts of processing agricultural crops.

(Solid Waste Management Board; [329 IAC 11.5-2-3](#))

#### [329 IAC 11.5-2-4](#) "Biomass anaerobic digestion facility" defined

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 4. "Biomass anaerobic digestion facility" means a facility that incorporates equipment that promotes the decomposition of biomass to simple organics and biogas products in the oxygen free environment of a closed, sealed chamber. The term includes a methane recovery system.

(Solid Waste Management Board; [329 IAC 11.5-2-4](#))

#### [329 IAC 11.5-2-5](#) "Biomass gasification facility" defined

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 5. "Biomass gasification facility" means a facility that incorporates equipment to carry out a thermochemical process that, with little or no oxygen present, converts biomass into a synthesis gas.

(Solid Waste Management Board; [329 IAC 11.5-2-5](#))

#### [329 IAC 11.5-2-6](#) "Closure" defined

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 6. "Closure" means the activities to be completed at the registered facility at the end of biomass and appropriate feedstock acceptance and processing.

(Solid Waste Management Board; [329 IAC 11.5-2-6](#))

#### [329 IAC 11.5-2-7](#) "Contingency action plan" defined

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 7. "Contingency action plan" means a written course of action to be followed for emergency

response in the event of an emergency that causes the release of contaminants into the environment or for the method or methods of biomass and appropriate feedstock management or disposal if the facility is unable to operate or process biomass and appropriate feedstock for seventy-two (72) hours or longer.

(Solid Waste Management Board; [329 IAC 11.5-2-7](#))

**[329 IAC 11.5-2-8](#) "Discard" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

**Sec. 8. "Discard" has the meaning set forth in [329 IAC 11-2-9.8](#).**

(Solid Waste Management Board; [329 IAC 11.5-2-8](#))

**[329 IAC 11.5-2-9](#) "Disposal" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-11-2-57](#); [IC 13-30-2](#); [IC 36-9-30](#)

**Sec. 9. "Disposal" has the meaning set forth in [IC 13-11-2-57](#). For purposes of this article, disposal must meet the requirements in [329 IAC 11.5-7-1](#).**

(Solid Waste Management Board; [329 IAC 11.5-2-9](#))

**[329 IAC 11.5-2-10](#) "Financial assurance" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

**Sec. 10. "Financial assurance" means, for purposes of this article, a bond acquired by the owner or operator of the registered facility in an amount sufficient to provide for:**

- (1) remediation of contamination at the registered facility; and**
- (2) closure of the registered facility.**

(Solid Waste Management Board; [329 IAC 11.5-2-10](#))

**[329 IAC 11.5-2-11](#) "Generator" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

**Sec. 11. "Generator" means the person that discards biomass or other appropriate feedstock regulated by this article.**

(Solid Waste Management Board; [329 IAC 11.5-2-11](#))

**[329 IAC 11.5-2-12](#) "Household hazardous waste" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

**Sec. 12. "Household hazardous waste" means hazardous waste:**

- (1) generated by a household; and**
- (2) exempt from the requirements of the hazardous waste rules at [329 IAC 3.1](#).**

(Solid Waste Management Board; [329 IAC 11.5-2-12](#))

**[329 IAC 11.5-2-13](#) "Landowner" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 13. "Landowner" means an owner of real property, as described in the recorded deed and the current county or counties plats. For purposes of this article, the term includes the lessee of the land.

(Solid Waste Management Board; [329 IAC 11.5-2-13](#))

**[329 IAC 11.5-2-14](#) "Operator" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 14. "Operator" means the person responsible for managing and overseeing a facility regulated under this article.

(Solid Waste Management Board; [329 IAC 11.5-2-14](#))

**[329 IAC 11.5-2-15](#) "Owner" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 15. "Owner" means the person who owns a facility required to register under this article.

(Solid Waste Management Board; [329 IAC 11.5-2-15](#))

**[329 IAC 11.5-2-16](#) "Registered facility" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 16. "Registered facility" means a:

- (1) storage;
- (2) processing; or
- (3) reuse or recovery;

facility that is registered under this article.

(Solid Waste Management Board; [329 IAC 11.5-2-16](#))

**[329 IAC 11.5-2-17](#) "Registration" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 17. "Registration" means the notification to, and the approval by, the commissioner regarding the construction, expansion, processing, or storage of biomass or appropriate feedstock for recovery of materials or energy through a biomass anaerobic digestion facility or a biomass gasification facility that:

- (1) meets the requirements for registration; and
- (2) must register under this article.

(Solid Waste Management Board; [329 IAC 11.5-2-17](#))

**[329 IAC 11.5-2-18](#) "Residue" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 18. "Residue" means, for purposes of this article, any discarded biomass and appropriate feedstock remaining after storing, reusing, or processing.

(Solid Waste Management Board; [329 IAC 11.5-2-18](#))

**[329 IAC 11.5-2-19](#) "Speculative accumulation" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 19. "Speculative accumulation" means the storage before processing or reusing of large quantities of biomass or appropriate feedstock without a current outlet for the processed or reused materials. It is a rebuttable presumption that storage of biomass, appropriate feedstock, or residue for more than six (6) months constitutes disposal.

(Solid Waste Management Board; [329 IAC 11.5-2-19](#))

**[329 IAC 11.5-2-20](#) "Storage" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 20. "Storage" means the retention, containment, or accumulation of biomass or appropriate feedstock intended for processing on a temporary basis in such a manner that it does not:

- (1) threaten or potentially threaten human health; or
- (2) impact or potentially impact the environment.

The term does not include speculative accumulation.

(Solid Waste Management Board; [329 IAC 11.5-2-20](#))

**[329 IAC 11.5-2-21](#) "Waste determination" defined**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 21. "Waste determination" means the documented process of determining the qualitative and quantitative nature of a particular waste in order to establish the regulatory status of the waste and determine if the waste must be disposed of under the hazardous waste rules at [329 IAC 3.1](#), the PCB rules at [329 IAC 4.1](#), or the solid waste rules at [329 IAC 10](#). The regulatory status may be determined using either generator knowledge or testing by the methods in 40 CFR 261, Subpart C, or equivalent methods approved under 40 CFR 260.21 to ascertain the following:

- (1) The waste is a hazardous waste under 40 CFR 262.11 and is regulated under [329 IAC 3.1](#) because of the following:
  - (A) The waste is not excluded from regulation under 40 CFR 261.4.
  - (B) The waste is a listed waste under 40 CFR 261, Subpart D.
  - (C) The waste exhibits characteristics specified in 40 CFR 261, Subpart C.
- (2) The waste contains regulated amounts of PCBs and is regulated under [329 IAC 4.1](#).
- (3) The waste is a solid waste and can be disposed of under [329 IAC 10](#).

(4) The waste is a solid waste and can be processed under [329 IAC 11](#).

**\*Note:** All federal regulations cited in this section are incorporated by reference as revised July 1, 2008. Sales of the Code of Federal Regulations are handled by the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954 or online at <http://bookstore.gpo.gov/>. The telephone number for the Superintendent of Documents is (202) 512-1800 or toll-free (866) 512-1800. The incorporated materials are available for public review at the offices of the department of environmental management.

(Solid Waste Management Board; [329 IAC 11.5-2-21](#))

### Rule 3. Exclusions

#### [329 IAC 11.5-3-1](#) Exclusions

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-11-2-258](#); [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 1. The following are excluded from regulation under this article:

- (1) Facilities that hold a valid permit under [329 IAC 10](#) or [329 IAC 11](#) to treat, process, store, or dispose of solid or hazardous wastes that are not described in [329 IAC 11.5-1-2](#).
- (2) A wastewater treatment plant as defined under [IC 13-11-2-258](#) that has a permit as a publicly owned treatment works (POTW) or an industrial treatment works under [327 IAC 5](#) that has a permit to discharge and does not store solid waste.
- (3) Processing, except for digestion or gasification, of uncontaminated and untreated natural growth including sawdust, tree limbs, stumps, leaves, and grass clippings.
- (4) Facilities permitted under [329 IAC 3.1](#) are not required to obtain permits for the storage, treatment, or disposal of nonhazardous solid waste where such solid waste is treated or disposed of as a hazardous waste at the receiving hazardous waste facility.
- (5) Wastewater discharge activities regulated by [327 IAC 5](#).
- (6) A biomass anaerobic digestion facility or a biomass gasification facility that is a waste management system under [327 IAC 19-13-2](#) at a concentrated animal feeding operation (CAFO) or a confined feeding operation (CFO) provided the facility complies with the following:
  - (A) [329 IAC 11.5-4-1\(g\)](#).
  - (B) [329 IAC 11.5-5](#).
  - (C) [329 IAC 11.5-6](#)
  - (D) [329 IAC 11.5-7](#).
  - (E) [329 IAC 11.5-8](#).
  - (F) [329 IAC 11.5-9](#), if the facility is accepting appropriate feedstock.

(Solid Waste Management Board; [329 IAC 11.5-3-1](#))

### Rule 4. Registration

#### [329 IAC 11.5-4-1](#) Registration

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 4-21.5-3](#); [IC 13-15-7](#); [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 1. (a) The owners or operators of all facilities described under [329 IAC 11.5-1-2](#) are required to register, unless excluded under [329 IAC 11.5-3-1](#). A registration is for a fixed term not to exceed five (5) years. A registration may be renewed in accordance with this section

(b) The registration form must be:

- (1) filled out completely; and
- (2) submitted to the commissioner in triplicate on a form or in a format provided by the commissioner.

(c) The commissioner may require the registration to be submitted electronically with an electronic signature. However, at any time a registration may be submitted electronically via electronic media.

(d) The form for renewal of the registration must be submitted to the commissioner at least sixty (60) days before the expiration date of the registration.

(e) The registration must be modified and submitted to the commissioner for approval prior to any of the following:

(1) A change in the following:

(A) The process at the biomass anaerobic digestion facilities and biomass gasification facility.

(B) The location of the biomass anaerobic digestion facilities and biomass gasification facilities.

(C) The amounts of biomass or appropriate feedstock specified in subsection (g)(5).

(2) An expansion to the biomass anaerobic digestion facilities or biomass gasification facilities.

(f) The owner or operator of a facility that would like to accept a biomass or appropriate feedstock that is not currently listed on the facility's approved registration or any acknowledgment letter issued by the commissioner must submit a notification to the commissioner for approval of that biomass or appropriate feedstock and receive an acknowledgment letter before use.

(g) The registration must include the following information:

(1) The name of the owner, operator, and landowner, if different from the registered facility owner.

(2) Addresses and telephone numbers for the owner, operator, and landowner.

(3) The location and address of the facility.

(4) The type of facility.

(5) The type and maximum amounts, in tons, of biomass or appropriate feedstock that are delivered daily and the maximum amounts of biomass, appropriate feedstock, and residues to be stored on-site and the probable duration of storage in days.

(6) Incoming biomass and appropriate feedstock testing and screening procedures to ensure that the registered facility is only receiving biomass and appropriate feedstock that are acceptable and approved for use at this registered facility.

(7) A plot plan that has a scale, including a bar scale, elevations that correlate with U.S. Geological Survey mean sea level data, north arrow, a map legend, facility boundary, roads, drainage ways, and identification on the plot plan of where the biomass, appropriate feedstock, and residues will be stored or processed in:

(A) a building;

(B) containers;

(C) vehicles;

(D) lagoons;

(E) tanks; or

(F) other proposed storage locations subject to approval by the commissioner.

(8) The construction plans and construction material for all areas where biomass, appropriate feedstock, and residues will be:

(A) stored; or

(B) processed.

(9) A detailed description of the:

(A) storage;

(B) handling;

(C) processing;

(D) treatment; and

(E) final disposition;

of the biomass or appropriate feedstock.

(10) The maximum total amount, in tons, of biomass or appropriate feedstock capable of being processed per day.

(11) Other permits from the commissioner for the facility.

(12) The date the facility became operational or will be operational.

(13) A contingency action plan that specifies the following:

(A) An outline of the method or methods of biomass and appropriate feedstock disposal to be implemented if the registered facility is unable to operate or process and there is no more remaining storage capacity for the alternative fuel that has been approved in the registration.

- (B) The maximum amounts of biomass, appropriate feedstock, and residues as specified in subdivision (5) at the facility site at any one (1) time.
- (C) Emergency response plan for controlling:
  - (i) fire;
  - (ii) explosion;
  - (iii) spills; and
  - (iv) contamination.
- (D) If required, a spill prevention control plan, under Section 311(j)(1)(C) of the Clean Water Act, as amended by the Oil Pollution Act of 1990.
- (E) A floor plan of the facility and areas where biomass and appropriate feedstock are stored.
- (F) A plot plan of the registered facility. The plot plan must include the information required in subdivision (7).
- (G) A United States Geological Service (USGS) map that identifies the facility location and any access roads.
- (H) Telephone numbers for the fire department responsible for responding to a fire or emergency at the facility.
- (14) A description of any residue, leachate, or wastewater resulting from the processing or storing of biomass or appropriate feedstock. Applicable surface water controls under [327 IAC 15-6](#) must be specified.
- (15) Material handling and housekeeping procedures for the following areas:
  - (A) Storage.
  - (B) Biomass and appropriate feedstock processing.
  - (C) Loading.
  - (D) Unloading.
- (16) The financial assurance documentation required under [329 IAC 11.5-9-1](#).

(h) The owner or operator must sign and submit the following certification with the registration: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including a fine or imprisonment for a knowing violation. I further certify that I am authorized to submit this information."

- (i) The commissioner or a designee may deny, revoke, limit the length of, or place additional conditions on a registration if the commissioner determines one (1) or more of the following:
  - (1) The commissioner, under [IC 13-15-7](#), has revoked the applicant's previous registration under this article.
  - (2) The registration form is incomplete.
  - (3) There is a violation of a requirement of this article or a condition of the registration.
  - (4) There is a failure to disclose all relevant facts in obtaining a registration under this article.
  - (5) There is a misrepresentation made in obtaining a registration under this article.
  - (6) The permittee fails to meet the requirements for a registration.
  - (7) The permittee fails to correct a condition as agreed to in an agreed order with the department or commissioner's order, or within the time established in the agreed order or commissioner's order, come into compliance with:
    - (A) the registration;
    - (B) this article; or
    - (C) both.

- (j) The issuance of a registration does not:
  - (1) convey any property right of any sort or any exclusive privileges;
  - (2) authorize any injury to persons or private property or invasion of other private rights or any infringement of federal, state, or local laws or regulations; or
  - (3) preempt any duty to comply with other federal, state, or local requirements.

- (k) A registration is not transferable. A new owner or operator:
  - (1) must submit a registration form to the commissioner thirty (30) days in advance of taking

ownership of the facility; and  
(2) may operate the facility in the interim.

(Solid Waste Management Board; [329 IAC 11.5-4-1](#))

### [329 IAC 11.5-4-2](#) Transition for submitting registration

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 2. (a) All owners or operators of existing facilities that are required to register under this article must submit a registration form within sixty (60) days after the effective date of this article. These facilities may continue to operate unless the registration is denied. All owners and operators with an existing biomass anaerobic digestion facility or a biomass gasification facility that intend to expand the facility must resubmit the registration for approval by the commissioner prior to expanding the facility.

(b) No person that plans a new biomass anaerobic digestion facility or biomass gasification facility that is required to be registered under this article may construct or operate without prior registration approval by the commissioner.

(Solid Waste Management Board; [329 IAC 11.5-4-2](#))

## Rule 5. Storage Requirements

### [329 IAC 11.5-5-1](#) Storage requirements for biomass and appropriate feedstock

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 1. (a) All registered facilities must store biomass and appropriate feedstock, or any residue in a manner that does not threaten human health and protects the environment. The following are examples of adequate storage:

- (1) A building that is weather tight with impervious floor.
- (2) A container capable of being enclosed.
- (3) A completely enclosed vehicle.
- (4) Tanks, lagoons, or other storage, as approved by the commissioner.

(b) Speculative accumulation of biomass and appropriate feedstock is not allowed. Facilities registered under this article must engage in only legitimate reuse or processing as demonstrated by the following:

- (1) The owner or operator of the registered facility must have a plan to reuse or process the biomass, appropriate feedstock, and residue, if applicable, which identifies the:
  - (A) biomass, appropriate feedstock, and residue, if applicable, to be reused or processed; and
  - (B) manner in which the biomass, appropriate feedstock, and residue, if applicable, is intended to be reused or processed.
- (2) Biomass, appropriate feedstock, and residue may be stored for periods exceeding six (6) months if a reason is provided in the registration, such as a contract providing for longer storage.
- (3) The biomass and appropriate feedstock, or any residue is stored in a manner reflecting its value as a commodity and in accordance with this rule.
- (4) The registered facility must maintain records for a period of five (5) years, recorded in a consistent manner either daily, weekly, or monthly for biomass and appropriate feedstock received by the facility, and biomass and appropriate feedstock processed at the facility, including the following:
  - (A) The total amount in estimated tons of biomass and appropriate feedstock received.
  - (B) The total amount in estimated tons of biomass, appropriate feedstock, and residue, if applicable, processed.
  - (C) The total amount in estimated tons of residue shipped from the facility for disposal.
- (5) Shipping papers and manifests as applicable.

(c) Adequate measures must be in place to control fire hazards, and the contingency action plan required under [329 IAC 11.5-4-1\(g\)\(13\)](#) must be submitted to the local fire department that services the area.

(Solid Waste Management Board; [329 IAC 11.5-5-1](#))

## Rule 6. Operational Requirements

[329 IAC 11.5-6-1](#) Operational requirements for processing of biomass and appropriate feedstock

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 1. (a) A facility that processes or stores biomass and appropriate feedstock must have the following:

(1) A sign at least one (1) foot high by two (2) feet wide prominently displayed by the door or entrance to the facility and legibly containing the following information:

(A) The name of the facility.

(B) The IDEM registration number.

(C) The name and telephone number of a designated emergency contact person.

(2) Processing on an impervious surface such as concrete or asphalt with curbs to contain spills. All liquids or leachate must be controlled and collected. Facilities that are registered under this article that are only processing uncontaminated wood are not required to process on a pad.

(3) Adequate measures in place to control fire hazards, and equipment available to control fires. The contingency action plan required under [329 IAC 11.5-4-1\(g\)\(13\)](#) must be submitted to the local fire department that services the area.

(4) A telephone, cellular telephone, or radio communication device available when employees are present and the building is in use.

(5) Access control to the facility.

(6) Adequate control of the following:

(A) Dust.

(B) Odors.

(C) Wastewater.

(D) Vectors.

(E) Litter.

(F) Leachate.

(7) Monitoring of incoming biomass and appropriate feedstock. Any biomass and appropriate feedstock that the facility is not permitted or registered to receive for processing must be isolated and removed from the registered facility.

(8) Putrescible biomass and appropriate feedstock that is stored must be fed into the biomass anaerobic digestion facility or biomass gasification facility within seventy-two (72) hours of receipt at the registered facility.

(b) Any container or vehicle that stores biomass or appropriate feedstock that is:

(1) subject to blowing; or

(2) a vector attraction;

must be closed at the end of the operating day.

(c) The owner or operator shall record and retain at the registered facility, or in an alternative location approved by the commissioner, all records, reports, or audits required by this article until certification of closure is deemed adequate by the commissioner under [329 IAC 11.5-8-1\(f\)](#). The following information must be retained:

(1) A paper copy or an accessible copy of the electronically submitted registration.

(2) A contingency action plan as required under [329 IAC 11.5-4-1\(g\)\(13\)](#).

(3) The records required under [329 IAC 11.5-5-1\(b\)\(2\)](#).

(4) The training log required under subsection (f).

(5) The results of any waste determination tests on the residues generated by the registered facility.

(d) All records required by this article must be furnished as required and made available during normal operating hours for inspection by any officer, employee, or representative of the commissioner.

(e) No hazardous waste that is regulated by [329 IAC 3.1](#) shall be processed at any registered facility, unless the facility is permitted under [329 IAC 3.1](#) to process hazardous waste.

(f) Employees must be trained on safety, emergency, and operational procedures for the facility. A training log must be kept at the registered facility for five (5) years stating the following:

- (1) The name of the employee.
- (2) Training topics.
- (3) Hours of training.

(g) The facility, storage area, or vehicle storing biomass and appropriate feedstock, or any residue must:

- (1) have access controls in place, such as a locked door, twenty-four (24) hour security, or fence with locked gate; and
- (2) be secured during nonbusiness hours.

(h) The land, building, vehicles, and containers must be maintained clean and free of biomass, appropriate feedstock, residues, other than in designated storage areas.

(i) Storage, including the retention, containment, or accumulation of biomass, appropriate feedstock, and residue, on a temporary basis must be done in such a manner that it does not:

- (1) threaten or potentially threaten human health; or
- (2) impact or potentially impact the environment.

It is a rebuttable presumption that storage of biomass and appropriate feedstock, or any residue for more than six (6) months constitutes discarding and disposal.

(Solid Waste Management Board; [329 IAC 11.5-6-1](#))

## Rule 7. Disposal

### [329 IAC 11.5-7-1](#) Disposal and end use

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 1. (a) Persons, generators, owners, or operators disposing of biomass, appropriate feedstock, or residue must make a waste determination and dispose as applicable at either of the following:

(1) A facility permitted in Indiana under the following:

- (A) [329 IAC 3.1](#).
- (B) [329 IAC 4.1](#).
- (C) [329 IAC 10](#).
- (D) Incinerators permitted under [329 IAC 11](#).
- (E) [329 IAC 13](#).

(2) A facility out of state.

(b) Biomass, appropriate feedstock, or residue may require a:

- (1) land application permit if land applying; or
- (2) beneficial use approval.

(Solid Waste Management Board; [329 IAC 11.5-7-1](#))

## Rule 8. Closure

**[329 IAC 11.5-8-1](#) Closure**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-25-5-8.5](#); [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 1. (a) The owner or operator must notify the commissioner in writing at least fourteen (14) days before the date when the registered facility permanently ceases accepting biomass or appropriate feedstock.

(b) All biomass, appropriate feedstock, and residue must be:

(1) removed from the:

- (A) building;
- (B) containers;
- (C) storage areas;
- (D) lagoons;
- (E) tanks; and
- (F) vehicles; and

(2) disposed of according to [329 IAC 11.5-7-1](#);

within sixty (60) days of the registered facility no longer accepting biomass and appropriate feedstock. Facilities that have a confined feeding operation (CFO) approval or a concentrated animal feeding operation (CAFO) permit and that cease processing biomass are required to comply with that permit or approval.

(c) Any contaminants resulting from the storage or processing of biomass, appropriate feedstock or residue that are above risk based standards under [IC 13-25-5-8.5](#) must be contained, removed and disposed of according to [329 IAC 11.5-7-1](#). This requirement does not include any contaminants that the owner or operator can demonstrate were existing before the storage or processing of biomass or appropriate feedstock.

(d) A registered facility must be certified closed under subsection (e) after all biomass, appropriate feedstock, and residue are removed and disposed.

(e) The owner or operator must send a certification statement indicating that the requirements of this section have been met to the commissioner within thirty (30) days after completion of the closure.

(f) After the closure certification is deemed adequate by the commissioner, the owner or operator of the registered facility is released from the obligation of maintaining closure financial assurance.

*(Solid Waste Management Board; [329 IAC 11.5-8-1](#))*

**Rule 9. Financial Assurance**

**[329 IAC 11.5-9-1](#) Financial assurance for cleanup and closure**

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-14](#); [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 1. (a) All owners or operators that are required to register under this article shall establish financial assurance for closure of the registered facility. Facilities that have a confined feeding operation (CFO) approval or a concentrated animal feeding operation (CAFO) permit and that are processing biomass are exempt from the requirement to obtain financial assurance on any biomass. The financial assurance must be provided as a surety bond as specified in subsection (c) in the amount that will provide for closure of the registered facility in the event the owner or operator has failed to close the registered facility.

(b) The amount that will provide for closure is determined by the maximum amount in tons of biomass, appropriate feedstock, and residue that may be stored at the facility at one (1) time, multiplied by thirty dollars (\$30).

(c) The surety bond is established as follows:

(1) On forms:

- (A) provided by the commissioner; or
- (B) as approved by the commissioner.

(2) All surety bonds must contain the following:

- (A) The establishment of minimum bond amount determined by subsection (b).
- (B) Provision that the surety will place the amount that will provide for closure into a standby trust fund, as directed by the commissioner, upon notice from the commissioner that the owner or operator has failed to close the facility under the requirements of [329 IAC 11.5-8-1](#).
- (C) Provision that the surety may not cancel the bond without first sending notice of cancellation by certified mail to the owner or operator and the commissioner at least one hundred twenty (120) days before the effective date of the cancellation.
- (D) Provision that the owner or operator may not terminate the bond without prior written authorization by the commissioner.

(3) The surety company issuing the bond must be:

- (A) among those listed as acceptable sureties for federal bonds in Circular 570 of the United States Department of the Treasury; and
- (B) authorized to do business in Indiana.

(4) The surety will not be liable for deficiencies in the performance of closure by the owner or operator after the closure certification is deemed adequate by the commissioner.

(5) The owner or operator shall establish a standby trust fund to be utilized in the event the owner or operator fails to fulfill closure obligations and the bond guarantee is exercised. Such trust fund must be established in accordance with the following:

- (A) On forms provided by the commissioner or forms as approved by the commissioner.
- (B) The establishment of a standby trust fund in the amount determined by subsection (b) for commissioner-approved work done to close the facility.
- (C) The requirement of successor trustees to notify the commissioner, in writing, of their appointment at least ten (10) days prior to the appointment becoming effective.
- (D) The requirement that the funded trust is irrevocable unless terminated in writing by the commissioner.
- (E) The requirement that all signatures be notarized by a notary public commissioned to be a notary public in the state of Indiana at the time of notarization.
- (F) The requirement that the trustee is authorized to act as a trustee and is an entity whose operations are regulated and examined by a federal agency and a state of Indiana agency.

(d) The owner or operator may use a single surety bond to meet the requirements for more than one (1) facility. Evidence of financial assurance submitted to the commissioner must include a list showing, for each facility, the following:

- (1) The IDEM registration number, name, and address.
- (2) The amount of funds available through the surety bond that must be not less than the sum of funds that would be available if a separate surety bond had been established and maintained for each facility.

(e) An owner or operator shall do the following:

- (1) Notify the commissioner by certified mail within ten (10) days from commencement of a voluntary or involuntary proceeding under bankruptcy under 11 U.S.C. 101 et seq., naming the owner or operator as debtor. An owner or operator who has a surety bond shall be deemed to be without the required financial assurance in the event of bankruptcy of the institution issuing the surety bond.
- (2) Reestablish financial assurance within sixty (60) days after such an event. The registered facility cannot operate outside the sixty (60) day period without establishing a surety bond for the amount required under subsection (b).

(f) In addition to any other penalties provided for in this article or in [IC 13-14](#) and [IC 13-30](#), any failure to obtain, maintain, or fund financial assurance as required by this rule within the prescribed time limits shall be grounds for a proceeding to revoke the facility's registration or to order final closure of the

registered facility.

**(g) After the closure certification is deemed adequate by the commissioner, the owner or operator of the registered facility is released from the obligation of maintaining financial assurance under this article.**

*(Solid Waste Management Board; [329 IAC 11.5-9-1](#))*

SECTION 3. THE FOLLOWING ARE REPEALED: [329 IAC 11-17](#); [329 IAC 11-18](#); [329 IAC 11-19](#); [329 IAC 11-20](#).

[Notice of Public Hearing](#)

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