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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**Attention:**  Office of Land Quality

Permits Branch

100 N. Senate Ave., IGCN 1101

Indianapolis, IN 46204-2251

Telephone number: (317) 232-4473

**BIOMASS ANAEROBIC**

**DIGESTER / GASIFICATION**

**FACILITY REGISTRATION APPLICATION**

State Form 55309 (R3 / 8-16)

*INSTRUCTIONS: A biomass facility is a facility that meets the following criteria: 1) it stores, reuses, or processes biomass and appropriate feedstock wastes to produce energy and reusable byproducts; and 2) uses little or no oxygen in its process, such as a biomass anaerobic digestion facility/biomass gasification facility.*

*A biomass facility can be approved in three (3) ways:*

1. ***Biomass Registration.*** *A biomass facility that is not part of a confined feeding operation/concentrated animal feeding operation (CFO/CAFO) and is processing only biomass and appropriate feedstock (see definition on the next page)**can be approved with a biomass registration. To apply for, renew, or modify a biomass registration, please send three (3) completed copies of this form to the above address.*
2. ***CFO Approval.*** *A biomass facility that is (a) part of a CFO/CAFO, and (b) processes only biomass and appropriate feedstock, must be approved through the animal operation’s CFO Approval. To apply for, renew, or modify a CFO Approval to include a new biomass facility or make changes to an existing biomass facility located at an approved CFO/CAFO, please send three (3) completed copies of this form with a CFO Approval application (State Form 55051) to the above address. If a change only involves the type of biomass or appropriate feedstock the facility wishes to accept, please submit this form along with a CFO Facility Change form* (State Form 50209).
3. ***Solid Waste Processing Facility Permit****. A biomass facility processing solid waste that does not qualify as appropriate feedstock must be approved with a solid waste processing facility permit, even when located at a CFO/CAFO. To apply for, renew, or modify a solid waste processing facility permit incorporating such a biomass facility, please send three (3) completed copies of this form with your solid waste processing facility permit application (State Form 53315) to the above address. If the biomass facility is part of a new or proposed CFO/CAFO, you will also need to send a CFO Approval application (State Form 55051).*

*If the reusable byproduct is the result of the biomass facility processing appropriate feedstock (329 IAC 11.5-2-2), you may need a land application permit (327 IAC 6.1). Please call (317) 232-8735 if you have questions about your need for a land application permit or other information regarding the land application program.*

*You can review the regulations referenced in this form at* [*iga.IN.gov*](file:///D%3A%5Ciga.in.gov)*. Questions? Please contact us at the telephone number given in our address box above.*

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| This application is for:*Selection will determine what subsection(s) of Section F to complete.*  | [ ]  New Biomass Registration [ ]  Biomass Registration Renewal/CFO Renewal (*If standalone biomass facility, due at least sixty (60) days before the expiration date of your current biomass registration; if biomass facility at CFO, due (along with your CFO renewal application) at least thirty (30) days before the expiration date of your current CFO permit.)****Note:*** Also include with a Solid Waste Facility Permit Renewal.[ ]  Biomass Registration Modification/CFO Approval Amendment, CFO Expansion Application/Solid Waste Permit Modification *(for change in process, the amounts of biomass/appropriate feedstock, facility location, or expansion of facility)*[ ]  Biomass Registration Modification/CFO Facility Change/Solid Waste Permit Modification (*for addition of new biomass or appropriate feedstock not currently approved*)  |
| This biomass facility is located at a CFO/CAFO: [ ]  Yes [ ]  No If yes, Farm Identification Number:  |
| This biomass facility is located at a solid waste processing facility: [ ]  Yes [ ]  No If yes, Solid Waste Permit Number: FP  |

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| Section A. Owner Information  |
| Name |
| Mailing Address: Street | Apt. number | P.O. Box | Town/City |
| State | ZIP Code | Telephone Number (*with area code*) |
| Section B. Operator Information |
| Name |
| Mailing Address: Street | Apt. number | P.O. Box | Town/City |
| State | ZIP Code | Telephone Number (*with area code*) |
| Section C. Landowner Information |
| Name |
| Mailing Address: Street | Apt. number | P.O. Box | Town/City |
| State | ZIP Code | Telephone Number (*with area code*) |

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| **Section D. Facility Information** |
| Name of Facility | Registration Number (*if renewal*) |
| Mailing Address: Street | Apt. Number | P.O. Box | Town/City | ZIP Code |
| Location Address: Street/County Road | County | Town/City |
| Type of Facility: [ ]  Biomass Anaerobic Digestion Facility [ ]  Biomass Gasification Facility |
| Contact Name |
| Telephone Number (*with area code*) | E-mail address |
| Do you agree to receive communications through e-mail? [ ]  Yes [ ]  No | The maximum total amount of biomass or appropriatefeedstock that the facility can process per hour (in tons or gallons):  |
| List other IDEM permits, registrations, or approvals issued for the facility. Include number issued for each permit, registration, or approval:      |
| The date the facility became operational or will be operational *(month, day, year)*      |
| **Section E. Definitions** |
| **Biomass** Biological material available on a renewable recurring basis that is used as a source of renewable energy. Examples include agricultural crops; byproducts of processing agricultural crops; agricultural wastes and residues; wastes generated from untreated, unpainted natural wood; animal wastes and byproducts *(including manure)*; aquatic plants; and algae.**Appropriate feedstock or feedstock**Segregated waste streams that can be successfully processed with biomass to produce energy. Examples include food waste; cooking oil and grease; industrial waste, such as paper pulp; sewage sludge; off-spec or unused animal feeds that are nonindustrial waste sources; dried distillers grain; food waste from the food manufacturing and food services industries; or pallets.**Residue (discarded)**The leftover material that must be discarded (*unusable biomass, unusable appropriate feedstock, or unusable byproducts*) after you store, reuse, or process biomass and/or appropriate feedstock.**Byproduct (reused)**The material that is recovered after processing through a registered biomass anaerobic digestion facility or biomass gasification facility and then reused.**Biomass anaerobic digestion facility**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.**Biomass gasification facility**A facility that incorporates equipment to carry out a thermochemical process that, with little or no oxygen present, converts biomass into a synthesis gas.*Please note the term “biomass facility” includes either a biomass anaerobic digestion facility or a biomass gasification facility.* |
| **Section F. Registration Requirements** |
| ***Complete each subsection that applies to the type of application.*** |
| 1. **New Registrations Design and Operation Checklist**

***Complete this subsection for the following: 1. new biomass facility registrations 2. new CFO/CAFOs incorporating a biomass facility, in conjunction with the CFO Approval application 3. new solid waste processing facilities incorporating a biomass facility, in conjunction with the solid waste processing facility permit application. Please provide each item below in the order given, and note whether present or not applicable.***  |
| **Information** | **Present? (Y,N or N/A)** | **Location in Submittal** |
| 1. Documentation providing the following information for each biomass or appropriate feedstock accepted at your operation:
 |  |  |
| * 1. Physical or chemical characteristics
 |       |       |
| * 1. Source of biomass or appropriate feedstock, such as “Acme Foods, Smith’s Cow Dairy,” etc.
 |       |       |
| * 1. The process that created the biomass or appropriate feedstock
 |       |       |
| * 1. Maximum tonnage of biomass or appropriate feedstock that could be delivered, on a daily, weekly, or monthly basis
 |       |       |
| 1. Maximum tonnage and volume (gallons or cubic feet) of biomass, appropriate feedstock, byproducts, and residues that can be stored on site, and their probable storage time in days.
 |       |       |
| 1. Identification of any byproducts.
 |       |       |
| 1. Description of incoming screening procedures used to ensure your facility is only receiving acceptable biomass and appropriate feedstock approved for use at your facility.
 |       |       |
| 1. Plot plan that includes the following:
 |       |       |
| * 1. Scale (*including a bar scale*)
 |       |       |
| * 1. Elevations correlating with USGS mean sea level data
 |       |       |
| * 1. North arrow
 |       |       |
| * 1. Map legend
 |       |       |
| * 1. Facility boundary
 |       |       |
| * 1. Roads
 |       |       |
| * 1. Drainage ways
 |       |       |
| * 1. Identification of where the biomass, appropriate feedstock, byproducts, and residue will be stored or processed, such as:
 |       |       |
| * + 1. Building (*including its floor plan*)
 |       |       |
| * + 1. Containers
 |       |       |
| * + 1. Vehicles
 |       |       |
| * + 1. Lagoons
 |       |       |
| * + 1. Tanks
 |       |       |
| * + 1. Any other proposed storage location needing IDEM approval
 |       |       |
| 1. Construction plans, with a description of construction materials used, for all areas where biomass, appropriate feedstock, byproducts, and residue will be stored and/or processed. Include design plans and design standards. Provide a cross-section drawing of the storage/processing system. Describe how these systems will comply with the storage requirements of 329 IAC 11.5-5-1.
 |       |       |
| 1. Description of the storage, handling, processing, treatment, and final disposition procedures for the biomass, appropriate feedstock, byproducts, or residue at your operation. Include whether storage for over six (6) months is needed (329 IAC 11.5-5-1(b)(2)). Provide a process flow diagram from waste acceptance to final disposition.

*Note: Additional permits or authorizations may be needed depending on the disposal method of the residue. Examples include, but are not limited to, a land application permit (327 IAC 6.1-3), marketing and distribution permit (327 IAC 6.1-5), and certification for distributors and users of fertilizer material (355 IAC 7).* |       |       |
| 1. Contingency plan that includes the following documents and information:
 |       |       |
| * 1. Outline of the method or methods of biomass/appropriate feedstock management or disposal to be implemented if your facility is unable to operate or process, and there is no remaining storage capacity for the biomass and appropriate feedstock approved in the registration.
 |       |       |
| * 1. Maximum amounts of biomass, appropriate feedstock, byproducts, and residues on site at any one time, as required in Item 2 of Subsection I above.
 |       |       |
| * 1. Emergency response plan for controlling the following:
 |       |       |
| * + 1. Fire
 |       |       |
| * + 1. Explosion
 |       |       |
| * + 1. Spills
 |       |       |
| * + 1. Contamination
 |       |       |
| * 1. If required, a spill prevention control plan for oil storage under Section 311(j)(1)(C) of the Clean Water Act. This plan is required if your facility meets all the following criteria (*see* [*http://www.epa.gov/R5Super/oil/spcc.html*](http://www.epa.gov/R5Super/oil/spcc.html) *for more information*):
* it must be non-transportation-related;
* it must have an aggregate aboveground storage capacity greater than 1,320 gallons or a completely buried storage capacity greater than 42,000 gallons; and
* there must be a reasonable expectation of a discharge into or upon navigable waters of the United States or adjoining shorelines.
 |       |       |
| * 1. A floor plan of the facility and areas where biomass, appropriate feedstock, byproducts, and residues are contained or stored.
 |       |       |
| * 1. A plot plan of the registered facility that includes the information required in item 5 of Subsection I above.
 |       |       |
| * 1. USGS map that identifies the facility location and any access roads.
 |       |       |
| * 1. Telephone numbers for the fire department responsible for responding to a fire or emergency at the registered facility.
 |       |       |
| 1. Description of any residue, byproducts, leachate, or wastewater resulting from the processing or storing of biomass and appropriate feedstock. Applicable surface water controls under 327 IAC 15-6 must be specified.
 |       |       |

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| 1. Description of biomass, appropriate feedstock, byproducts, or residue handling and waste housekeeping procedures used for the following areas:
 |       |       |
| * 1. Storage
 |       |       |
| * 1. Biomass and appropriate feedstock processing
 |       |       |
| * 1. Loading
 |       |       |
| * 1. Unloading
 |       |       |
| **Note:** The facility must be cleaned regularly to prevent a nuisance or public hazard. Include procedures to minimize dispersal of waste off-site.  |  |  |
| 1. Description of the procedures used to control the following:
 |       |       |
| * 1. Dust
 |       |       |
| * 1. Odors
 |       |       |
| * 1. Wastewater
 |       |       |
| * 1. Vectors
 |       |       |
| * 1. Litter
 |       |       |
| * 1. Leachate
 |       |       |
| 1. Description of the access control procedures used at the facility, including details on the facility sign required at 329 IAC 11.5-6-1(a)(1).
 |       |       |
| 1. Description of the employee training program at the facility.
 |       |       |
| 1. Description of the facility operation documenting compliance with the operational requirements of 329 IAC 11.5-6-1.
 |       |       |
| 1. Description of record keeping procedures required under 329 IAC 11.5-5-1(b)(4).
 |       |       |
| 1. A closure plan showing compliance with 329 IAC 11.5-7-1. Include closure cost-estimates for the disposal of all biomass, appropriate feedstock, reusable byproduct, and residue on-site by a third party.
 |       |       |
| 1. Documentation showing the owner or operator has established financial assurance as specified at 329 IAC 11.5-8-1.

*Note: Facilities that have a CFO Approval are required to obtain financial assurance on the maximum amount (in tons) of any appropriate feedstock and residue stored at any one time, but are exempt on any biomass stored at any one time.* |       |       |
| 1. **Registration Renewal**
 |
| ***Complete this subsection if the facility is renewing a biomass registration, a CFO Approval, or a solid waste processing facility permit. Update the cost of the surety bond to meet the financial assurance requirements of 329 IAC 11.5-8 for all renewal requests.***  |
| [ ]  If the maximum on-site tonnage estimate **has not changed** from the previous registration, the update for the cost of the surety bond will be calculated by multiplying the final figure of the most recent surety bond amount in the original registration, a modification, or most current renewal by an inflation factor of ten percent (10%). The recalculated amount will be the surety bond amount required for financial assurance in a renewal.  |
|  |  |  |  |  |  |
| $ |       | x 1.1 = | $  |       |  |
|  | Most recent approved surety bond amount |  |
| **OR** |
| [ ]  If the maximum on-site tonnage estimate **is changing** from the previous registration, the amount is determined by the maximum amount in tons of biomass, appropriate feedstock, and residue that may be stored at the facility at one time, multiplied by $90 and an inflation factor of ten percent (10%).   *Note: Facilities that have a CFO Approval are required to obtain financial assurance on any appropriate feedstock and residue stored at any one time, but are exempt on any biomass.* |
|  |       | Tons | x $90 x 1.1= | $ |       |  |
|  | Maximum amount of biomass, appropriate feedstock, and residue stored at the facility at one time |  |  |
| Provide an updated detailed description of the storage, handling, processing, treatment, and final disposition procedures for the biomass, appropriate feedstock, byproducts, or residue. Include information on the system design as necessary. *(Attach additional sheets if necessary.)*       |
| *Note: Additional permits or authorizations may be needed depending on the disposal method of the residue. Examples include, but are not limited to, a land application permit (327 IAC 6.1-3), marketing and distribution permit (327 IAC 6.1-5), and certification for distributors and users of fertilizer material (355 IAC 7).* |

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| 1. **Registration Modification / CFO Approval Amendment / Solid Waste Processing Facility Permit Modification**
 |
| ***Complete this subsection if approval is sought for any of the following changes. Also include the completed forms for a CFO Approval amendment or a solid waste processing facility permit modification if applicable.*** |
| [ ]  A change in the process at the biomass facility.Provide an updated detailed description of changes to the storage, handling, processing, treatment, and final disposition procedures for the biomass, appropriate feedstock, byproducts, or residue. *(Attach additional sheets if necessary.)*        |
| *Note: Additional permits or authorizations may be needed depending on the disposal method of the residue. Examples include, but are not limited to, a land application permit (327 IAC 6.1-3), marketing and distribution permit (327 IAC 6.1-5), and certification for distributors and users of fertilizer material (355 IAC 7).* |
| [ ]  A change in the location of the biomass facility. |
| Provide an updated plot plan that includes the following: |
| 1. Scale (*including a bar scale*)
 |
| 1. Elevations correlating with USGS mean sea level data
 |
| 1. North arrow
 |
| 1. Map legend
 |
| 1. Facility boundary
 |
| 1. Roads
 |
| 1. Drainage ways
 |
| 1. Identification of where the biomass, appropriate feedstock, solid waste, and residue will be stored or processed, such as:
 |
| 1. Building (*including its floor plan*)
 |
| 1. Containers
 |
| 1. Vehicles
 |
| 1. Lagoons
 |
| 1. Tanks
 |
| 1. Any other proposed storage location needing IDEM approval
 |
| [ ]  A change (increase) in the amounts of biomass, appropriate feedstock, or solid waste (if permitted solid waste processing facility) specified in your current registration/CFO Approval/solid waste processing permit. |
| * If the facility plans to continue accepting only the biomass, appropriate feedstock, or solid waste currently listed on the approved registration/CFO Approval/solid waste processing facility permit:
 |
| 1. Provide the following for each biomass, appropriate feedstock, or solid waste accepted at your facility:
 |
| 1. Maximum tonnage of biomass, appropriate feedstock, and solid wastes that could be delivered, on a daily, weekly, or monthly basis; and
 |
| 1. Maximum tonnage of biomass, appropriate feedstock, byproducts, solid wastes, and residues that can be stored on site, and their probable storage time in days.
 |
| * If the facility plans to accept new biomass, appropriate feedstock, or solid wastes not currently listed on the approved registration/CFO Approval/solid waste processing facility permit:
1. Provide the following for each biomass, appropriate feedstock, or solid waste accepted at your facility:
2. Maximum tonnage of biomass, appropriate feedstock, or solid waste that could be delivered, on a daily, weekly, or monthly basis; and
3. Maximum tonnage of biomass, appropriate feedstock, byproducts, solid waste, and residues that can be stored on site, and their probable storage time in days.
 |
| 1. Provide the following for the new biomass, appropriate feedstock, or solid waste you plan to accept at your facility:
2. Source of biomass, appropriate feedstock, or solid waste, such as “Acme Foods, Smith’s Cow Dairy,” etc.;
3. The process that created the biomass, appropriate feedstock, or solid waste;
4. Analytical data from a representative sample of each waste stream for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, zinc as total metals, and polychlorinated biphenyls (PCBs) on both a wet and dry basis;
5. Documentation that the appropriate feedstock or solid waste has been determined, in accordance with 329 IAC 3.1, to be non-hazardous; and
6. Information regarding the potential for the appropriate feedstock or solid waste to contain volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs) based on the generation process and/or analytical data.
 |
| *Note: If the accepted amounts of biomass, appropriate feedstock, and/or solid waste increase, the owner or operator must revise the financial assurance accordingly per 329 IAC 11.5-8-1 (if standalone biomass facility or CFO Approval) or 329 IAC 11-16.* |
| [ ]  An expansion to the biomass facility, including new storage, treatment, or processing structures. |
|  Complete Subsection I (New Registrations Design and Operation Checklist) of Section F  |
| 1. **Request to Accept New Biomass or Appropriate Feedstock/CFO Facility Change/Solid Waste Permit Change**
 |
| ***Complete this section if the facility is only requesting to accept biomass appropriate feedstock, or solid waste not currently listed on the facility’s approved registration or any acknowledgement letter issued by the commissioner. The acceptance of new biomass, feedstock, or solid waste cannot exceed the maximum amounts of biomass, appropriate feedstock, or solid waste specified in the most current biomass registration, CFO Approval, or solid waste processing facility permit, unless IDEM approves an increase in the maximum amounts along with the new biomass as detailed in Section IV above.***  |
| Provide the following for the new biomass, appropriate feedstock, or solid waste you plan to accept at your facility:1. Source of biomass, appropriate feedstock, or solid waste, such as “Acme Foods, Smith’s Cow Dairy,” etc.;
2. The process that created the biomass, appropriate feedstock, or solid waste;
3. Analytical data from a representative sample of each appropriate feedstock or solid waste for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, zinc as total metals, and polychlorinated biphenyls (PCBs) on both a wet and dry basis;
4. Documentation that the appropriate feedstock or solid waste has been determined, in accordance with 329 IAC 3.1, to be non-hazardous; and
5. Information regarding the potential for the appropriate feedstock or solid waste to contain volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs) based on the generation process and/or analytical data.
 |
| Are the storage and handling requirements for the new biomass, appropriate feedstock, or solid waste the same as the biomass, appropriate feedstock, or solid waste currently listed in the facility’s approved registration/CFO Approval/solid waste processing facility permit? |  [ ]  Yes [ ]  No |
| If answer above is Yes at a biomass facility or a CFO/CAFO: *(329 IAC 11.5-4-1(f)(1) and (2)):** Biomass with the same storage and handling requirements is considered approved within fifteen (15) days unless a denial is issued by the commissioner.
* Appropriate feedstock with the same storage and handling requirements is considered approved within thirty (30) days unless a denial is issued by the commissioner.

If answer above is Yes at a permitted solid waste processing facility:* You will need to submit an insignificant modification application if the new biomass, appropriate feedstock, or solid waste has the same storage and handling requirements as materials currently permitted for receipt (*329 IAC 11-9-6*).

If answer above is No: *(329 IAC 11.5-4-1(f)(3))** Biomass or appropriate feedstock that has different storage or handling requirements can only be accepted by the facility after the receipt by the facility of the commissioner’s approval.
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| **Section G. Notification Requirements for Biomass Facilities Located at a CFO/CAFO** |
| If the biomass facility is located at a CFO/CAFO, please list the county executives/county commissioners for the county in which the CFO/CAFO is located, as well as the adjoining property owners. Adjoining land owners include each person who owns or occupies land that adjoins the land on which the CFO/CAFO is located. Attach additional sheets as necessary. *(NOTE: It is not necessary to complete this section if the biomass facility is not located at a CFO/CAFO.)* ***Note:*** *If the biomass facility is located at a solid waste processing facility, please use the public notice forms that are included with the solid waste permit application packet.* |
|  1. | Name |
| Mailing Address *(number and street)* |
| Town/City State ZIP Code |
|  2. | Name |
| Mailing Address *(number and street)* |
| Town/City State ZIP Code |
|  3. | Name |
| Mailing Address *(number and street)* |
| Town/City State ZIP Code |
|  4. | Name |
| Mailing Address *(number and street)* |
| Town/City State ZIP Code |
|  5. | Name |
| Mailing Address *(number and street)* |
| Town/City State ZIP Code |
|  6. | Name |
| Mailing Address *(number and street)* |
| Town/City State ZIP Code |
|  7. | Name |
| Mailing Address *(number and street)* |
| Town/City State ZIP Code |
|  8. | Name |
| Mailing Address *(number and street)* |
| Town/City State ZIP Code |
|  9. | Name |
| Mailing Address *(number and street)* |
| Town/City State ZIP Code |
|  10. | Name |
| Mailing Address *(number and street)* |
| Town/City State ZIP Code |
|  11. | Name |
| Mailing Address *(number and street)* |
| Town/City State ZIP Code |
| **Section H. Signatures and Certification Statements** |
| 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. |
| Name of Facility Owner/Operator *(Typed or Printed)*      | Signature of Facility Owner/Operator  | Date signed *(month, day, year)*      |