

CHAPTER 65

ANIMAL FEEDING OPERATIONS

DIVISION IV

ANAEROBIC DIGESTERS THAT ARE PART OF ANIMAL FEEDING OPERATIONS

567—65.300(455B, 455D) Applicability.

In addition to the requirements in Divisions I through III of this chapter, the following shall apply to anaerobic digesters that are part of animal feeding operations.

567—65.301(459,459A) Definitions and incorporation by reference. In addition to the definitions in Iowa Code sections 455B.101, 455B.171 and 459A.102, the following definitions shall apply to Division IV of this chapter:

“Anaerobic digester” means a vessel that processes organic material into biogas and digestate through microbial decomposition under anaerobic (low oxygen) conditions.

“Digestate” means both solid and liquid substances that remain following anaerobic digestion of organic material in an anaerobic digester.

“Feedstock” means, for the purpose of treatment in an anaerobic digester, a wide variety of organic materials, which may be introduced into an anaerobic digester. Feedstocks may also contain varying levels of non-digestible organics (e.g. woody materials) or contaminants depending on the source of feedstock, feedstock collection procedures, or feedstock pretreatment procedures. Feedstocks may be either liquid, semi-solid or solid, and may originate from agricultural, residential, commercial, industrial or institutional sources.

“Non-farm feedstocks” means, for the purpose of treatment in an anaerobic digester, feedstocks that are not generated from agricultural sources.

“Waste conversion technologies” has the same meaning as found in Iowa Code section 455B.301.

567—65.302(455B,455D) Rules for anaerobic digesters that are part of animal feeding operations.

65.302(1) Animal feeding operations must have a feedstock analysis and sampling protocol in place for receiving non-farm feedstocks for treatment in an anaerobic digester. The plan shall describe how feedstocks will be characterized to determine if any sources exist which may contribute to the presence of one or more of the heavy metals listed in subrule 65.302(2).

65.302(2) If the plan for non-farm feedstocks in subrule 65.302(1) demonstrates that one or more of the constituents below are present, digestate from non-farm feedstocks shall not be land applied or made available for land application if the digestate contains constituents in excess of the levels specified below.

<u>Constituents</u>	<u>Levels</u>	<u>Cumulative Loading Rate</u>	
Arsenic	41 mg/kg	41 kg/ha	36 lb/ac
Cadmium	39 mg/kg	39 kg/ha	34 lb/ac
Chromium	1200 mg/kg	3000 kg/ha	2670 lb/ac

Copper	1500 mg/kg	1500 kg/ha	1335 lb/ac
Lead	300 mg/kg	300 kg/ha	267 lb/ac
Mercury	17 mg/kg	17 kg/ha	15 lb/ac
Molybdenum	75 mg/kg	75 kg/ha	66 lb/ac
Nickel	420 mg/kg	420 kg/ha	373 lb/ac
Selenium	36 mg/kg	100 kg/ha	89 lb/ac
Zinc	2800 mg/kg	2800 kg/ha	2490 lb/ac

65.302(3) Record keeping. Records generated as a result of subrules 65.302(1) and 65.302(2) shall be maintained by the owner of an anaerobic digester that is part of an animal feeding operation. This recorded information shall be maintained for five years. Records shall be maintained at the site of the anaerobic digester and shall be made available to the department upon request.

65.302(4) Records inspection. The department may inspect an anaerobic digester that is part of an animal feeding operation at any time during normal working hours and may inspect any records required to be maintained.

CHAPTER 100

SCOPE OF TITLE – DEFINITIONS – FORMS – RULES OF PRACTICE

Add the following new definitions:

“Anaerobic digester” means a vessel that processes organic material into biogas and digestate through microbial decomposition under anaerobic (low oxygen) conditions. Anaerobic digesters are waste conversion technologies.

“Feedstock” means organic materials and other solid wastes used in a waste conversion technology facility that can be successfully processed for conversion into useful products and chemicals, green fuels such as ethanol and biodiesel, and clean, renewable energy. Feedstocks may be either liquid, semi-solid or solid, and may originate from agricultural, residential, commercial, industrial or institutional sources.

“Recyclable materials” means waste or materials, which would otherwise become waste, which through collection, separation or processing, that can be reused or returned to use in the form of raw materials or products.

“Byproduct” means any material that is recovered after processing at a waste conversion technology facility. A byproduct may be either a liquid, semi-solid or solid.

“Waste conversion facility” means a facility that utilizes waste conversion technologies. Facilities treating or processing hazardous waste are not waste conversion facilities.

“Waste conversion technologies” has the same meaning as found in Iowa Code section 455B.301.

CHAPTER 104

WASTE CONVERSION TECHNOLOGIES PERMIT AND ANNUAL FEES

567—104.1(455D.15A) Purpose. The purpose of this chapter is to implement Iowa Code 455D.15A by establishing the requirements for annually obtaining a permit for facilities using waste conversion technologies and annual fees for such permits.

567—104.2(455D.15A) Applicability and Compliance.

104.2(1) This chapter applies to all waste conversion technology facilities except:

a. Waste conversion technologies at municipal wastewater treatment plants. For rules pertaining to municipal wastewater treatment plants see 567—Chapter 64.

b. Anaerobic digesters that only accept animal manure or are part of an animal feeding operation as defined in Iowa Code subsection 459.102. For rules pertaining to anaerobic digesters that only accept animal manure or are part of an animal feeding operations, see 567—Chapter 65.302(455B,455D).

c. Facilities that purchase and process crops grown for energy production.

104.2(2) No person that plans a new waste conversion facility that is required to be permitted under this chapter may construct or operate without prior permit approval by the department. Any waste conversion facility in operation prior to [the effective date of this chapter] must submit the application materials for a permit required by subrule 104.5(5) within 180 days of the effective date of this chapter and may continue to operate pending a determination by the department for issuance of a waste conversion permit.

567—104.3(455D.15A) Definitions. For the purposes of this chapter, the definitions found in 567—100.2(455B,455D) shall apply.

567—104.4(455D.15A) Local approvals. The permit that is required by this chapter does not supersede or replace the need to obtain any local approvals.

567—104.5(455D.15A) Permit required. The owners or operators of all waste conversion technologies as defined in Iowa Code section 455B.301 are required to obtain a permit under this chapter, unless excluded under subrule 104.2(1). A permit is for a fixed term not to exceed one (1) year. A permit may be renewed annually in accordance with this rule.

104.5(1) *New permit.* The permit application submission must be submitted via hard copy or electronic submission and:

a. Include the permit application information from subrule 104.5(5);

b. Include the permit application certification required by subrule 104.5(6); and,

c. Be accompanied by the permit application fee as required by subrule 104.5(12).

104.5(2) *Permit renewal.* A request for renewal of the permit must be submitted at least thirty (30) days before the expiration date of the permit. The renewal request must be submitted via hard copy or electronic submission including a statement by the permittee requesting renewal of the waste conversion facility permit and:

- a. Include an annual report of the items listed in subrule 104.9(1);
- b. Include an update for the cost of the surety bond to meet the financial assurance requirements in rule 567— 104.11(455D.15A). If the maximum amounts of feedstock and byproducts to be stored on-site has not changed from the previous permit, 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 permit, a modification, or most current renewal by an inflation factor of two percent (2%). The recalculated amount will be the surety bond amount required for financial assurance in a renewal;
- c. Include the permit application certification required by subrule 104.5(6); and
- d. Be accompanied by the permit application fee as required by subrule 104.5(12).

104.5(3) Expired permit. No waste conversion facility may operate after an operation permit has expired except as follows.

- a. When an applicant submits a timely and complete application for permit renewal, the applicant's failure to have a permit is not a violation of this chapter until the department takes final action on the permit application. In that case, all terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.
- b. For applications considered incomplete, this protection shall cease to apply if the applicant fails to submit, by the deadline specified in writing by the department, any additional information identified as being needed to process the renewal application.

104.5(4) Permit modification. A request to modify the permit must be submitted to the department for approval prior to any of the following:

- a. A change in the following:
 - (1) The waste conversion process at the facility.
 - (2) The location of the facility.
 - (3) The amounts of feedstock specified in subparagraph 104.5(5)“e”(5).
- b. An expansion to the facility.

104.5(5) Permit application information. The permit application must include the following information:

- a. The name of the facility operator and landowner, if different from the facility owner.
- b. Addresses and telephone numbers for the owner, operator, and landowner.
- c. The location and address of the facility.
- d. The type of facility, i.e. anaerobic digestion, pyrolysis, gasification, etc.
- e. At a minimum the following information:
 - (1) The physical or chemical characteristics of the feedstock.
 - (2) The source of the feedstock.
 - (3) A description of the process that created the feedstock.
 - (4) Maximum amounts, in tons, of feedstocks that are delivered daily, weekly, or monthly basis.
 - (5) The maximum amounts of feedstock and byproducts to be stored on-site and the probable duration of storage in days.
 - (6) Identification of any byproducts.
 - (7) Other information requested by the department.
- f. Screening procedures to ensure that the facility is only receiving feedstocks that are acceptable for use at the facility.

g. Scale drawings of the facility including the location and size of feedstock and byproduct storage areas, fixed equipment, buildings, leachate and other liquids management features, if applicable, stormwater management features, access road and other constructed areas, and buildings integral to facility operation;

h. Design specifications for the engineered features of the facility including, but not limited to, pads, storage structures, containers, tanks, stormwater management features, leachate and other liquids management features, if applicable that demonstrates all structures, containers, tanks, and lagoons will meet the requirements of this chapter.

i. A detailed description of the:

- (1) Storage;
- (2) Handling;
- (3) Processing;
- (4) Treatment;
- (5) Reuse; and
- (5) Final disposition;

of the feedstock and byproducts.

j. The maximum total amount, in tons or gallons, as applicable, of feedstock capable of being processed per day.

k. Other approvals or permits from the department for the facility.

l. The date the facility became operational or will be operational.

m. A contingency action plan in the event that the facility is unable to operate or process feedstock for seventy-two (72) hours or longer that specifies the following:

(1) An outline of the method or methods of feedstock management or disposal to be implemented if the facility is unable to operate or process and there is no more remaining storage capacity for the feedstock that has been approved in the permit.

(2) The maximum amounts of feedstock and byproducts as specified in subparagraph 104.5(5)“e”(5) at the facility site at any one (1) time.

(3) Emergency response plan for controlling:

1. Fire;
2. Explosion;
3. Spills; and
4. Contamination.

(4) If required, a spill prevention control plan, under 40 CFR Part 112.

(5) A scale drawing of the facility that includes the information required in paragraph 104.5(5)“g.”

(6) Telephone numbers for the fire department responsible for responding to a fire or emergency at the facility.

n. A description of any waste residuals, leachate, or wastewater, resulting from the processing or storing of feedstock. Applicable surface water controls under 567—Chapter 64 must be specified.

o. The financial assurance documentation required under rule 567—104.11(455D.15A).

104.5(6) Permit application certification. The applicant must sign and submit the following certification with any new permit or renewal permit application: "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 permit revocation for a knowing violation. I further certify that I am authorized to submit this information."

104.5(7) Denial of permit. The department may deny, revoke, limit the length of, or place additional conditions on a permit if one (1) or more of the following is determined:

- a. The department has revoked the applicant's previous permit under this chapter.
- b. The application form is incomplete.
- c. There is a violation of a requirement of this chapter or a condition of the permit.
- d. There is a failure to disclose all relevant facts in obtaining a permit under this chapter.
- e. There is a misrepresentation made in obtaining a permit under this chapter.
- f. The permittee fails to meet the requirements for a permit.
- g. The permittee fails to correct a condition as agreed to in an agreed order with the department, or within the time established in the agreed order, come into compliance with the permit or this chapter.
- h. The permittee has lost legal entitlement to use the property identified in the permit.
- i. Upon notice that the permittee no longer wishes to retain the permit for future operation.

104.5(8) The issuance of a permit does not:

- a. Convey any property right of any sort or any exclusive privileges;
- b. 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
- c. Preempt any duty to comply with other federal, state, or local requirements.

104.5(9) A permit is not transferable. A new owner or operator:

- a. Must submit a permit application pursuant to subrule 104.5(5) to the department thirty (30) days in advance of taking ownership of the facility; and
- b. May operate the facility in the interim.

104.5(10) Permit conditions. A permit may be issued with special conditions, specified in writing by the department, that are necessary to ensure the facility can be operated in a safe and effective manner and in compliance with Iowa Code section 455D.15A and this chapter.

104.5(11) Inspection of site and operation. The department shall inspect facilities prior to issuing a new facility permit. The permit will not be issued until the facility is in compliance with this chapter. Facilities may be inspected by the department throughout the permit period and prior to permit renewal.

104.5(12) Permit application fee. Permit fees sufficient to cover the cost of implementing this permit program are required by the legislature in Iowa Code section 455D.15A. Permit fees shall be based on an hourly rate to cover wages and overhead costs of personnel employed by the department in the implementation of this permit program. The department shall calculate and publish on an annual basis an hourly billing rate at which permit fees shall be calculated.

567—104.6(455D.15A) Location restrictions. Waste conversion facilities constructed after [the effective date of this rule] and expansions to existing facilities must comply with the locations restrictions in subrule 567—113.6(2).

567—104.7(455D.15A) Storage Requirements.

104.7(1) All facilities required to obtain a permit under this chapter must store feedstock and byproducts in a manner that does not threaten human health and protects the environment. The following are examples of adequate storage:

- a. A building that is weather tight with impervious floor.
- b. A leak-proof container capable of being enclosed.
- c. A completely enclosed vehicle.
- d. Pads constructed with an impervious surface such as concrete or asphalt.
- e. Tanks, lagoons, or other storage, as approved by the department.

104.7(2) Feedstock and byproducts may not be stored in areas other than in designated, approved storage areas.

104.7(3) Storage tanks shall have secondary containment consisting of berms, dikes, liners, curbs, outer tanks, walls or other equipment capable of containing the stored liquids and capable of capturing the entire contents of the largest tank in the containment area in the event of a leak or spill.

104.7(4) All storage pads must be curbed or graded in a manner to prevent ponding, control run-on and runoff, and separately collect and convey all stormwater and leachate to separate storage or holding systems. Stormwater that is combined with leachate must be treated as leachate.

104.7(5) Lagoons shall be designed, constructed and operated in accordance with Chapter 18C of the “Iowa Wastewater Facilities Design Standards”. Lagoons must maintain a minimum two feet of freeboard.

104.7(6) *Speculative accumulation of byproducts not allowed.* Byproducts that have no intended use shall be stored no longer than seven days, including Sundays and national holidays. To establish that a byproduct is not being speculatively accumulated before being reused or recycled, permittees must document that, during a given calendar year, the amount of byproduct that is reused or recycled, or transferred to a different site for reuse or recycling, equals at least seventy-five (75) percent of the material accumulated at the beginning of the period. The accumulation period must be documented through an inventory log or other appropriate method.

567—104.8(455D.15A) Operational requirements.

104.8(1) Waste conversion facilities must have the following:

- a. Processing and storage of materials on an impervious surface such as concrete or asphalt with curbs to contain spills. All liquids or leachate must be contained and collected.
- b. Adequate measures in place to control fire hazards, and equipment available to control fires. The contingency action plan required under paragraph 104.5(5) “m” must be submitted to the local fire department that services the area.
- c. Monitoring of incoming feedstock. Any feedstock that the facility is not permitted to receive for processing must be isolated and removed from the permitted facility.
- d. Feedstock that is stored must be fed into the facility before it can become putrid.

104.8(2) Any container or vehicle that stores feedstock or byproducts that is subject to blowing or a vector attraction must be closed at the end of the operating day.

104.8(3) All records required by this chapter must be furnished as requested and made available during normal operating hours for inspection by the department.

104.8(4) No hazardous waste as defined in Iowa Code section 455B.411, subsection 3, shall be processed at any permitted facility.

104.8(5) Employees must be trained on safety, emergency, and operational procedures for the facility. A training log must be kept for five (5) years stating the following:

- a. The name of the employee.
- b. Training topics.
- c. Hours of training.

104.8(6) A facility within a town or city limits must have access controls in place, such as a locked door, twenty-four (24) hour security, or fence with locked gate and be secured during non-business hours.

104.8(7) Permittees must implement procedures as necessary to restrict incoming material to prevent receipt of, or to separate out recyclable materials and materials that are incompatible with the conversion technology being used, or that would pose human health or environmental risks. Byproducts must be characterized in accordance with federal hazardous waste regulations found in 40 CFR Part 261 to ensure proper disposal.

104.8(8) *Acceptance of new feedstocks.* New feedstocks may be accepted only if there is adequate storage pursuant to rule 567—104.7(455D.15A). Permittees must maintain the information from paragraph 104.5(5) “e” for new feedstocks received at the facility.

567—104.9(444D.15A) Record-keeping and reporting.

104.9(1) *Annual reporting.* The permittee must submit the following information annually at the time of permit renewal:

- a. The total amount of feedstock by type received during the permit period.
- b. The total amount of feedstock processed during the permit period.
- c. The total amount of byproducts used for beneficial purposes, if applicable, and the manner in which byproducts were used.
- d. The total amount byproducts shipped from the facility for disposal and disposal location.
- e. Documentation as described in paragraph 104.5(5) “e” for any new feedstocks accepted during the permit period.
- f. Quantity of gas, electricity or other useful products, chemicals, or green fuels such as ethanol and biodiesel produced by the facility.
- g. Nuisance complaints and actions taken to address complaints;

104.9(2) *Notification of violations.* Waste conversion facilities must notify the appropriate regional office of the department within 24 hours of, or at the start of the first working day, following a violation of the operating requirements under this rule. The initial report shall be made, in person, or by telephone and shall include at a minimum the following:

- a. The operating requirement(s) that was violated;
- b. The cause of the violation; and,
- c. The steps being taken to remedy the violation.

104.9(3) *Spill notification.* A person storing, handling, transporting, or land applying feedstock or byproducts from a waste conversion technology facility who becomes aware of a release to a surface water, groundwater, drainage tile line or intake shall notify the department of

the occurrence of release as soon as possible but not later than six hours after the onset or discovery of the release by contacting the department's spill line. The department's emergency spill line telephone number is (515) 725-8694.

104.9(4) The permittee shall record and retain at the permitted facility, or in an alternative location approved by the department, all records and reports required by this chapter. The following information must be retained until certification of closure is deemed adequate by the department under rule 567—104.10(455D.15A):

- a. A paper copy or an accessible electronic copy of the permit.
- b. A contingency action plan as required under paragraph 104.5(2) "m."
- c. Proof of financial assurance as required by rule 567—104.11(455D.15A).

567—104.10(444D.15A) Facility closure.

104.10(1) When a waste conversion facility intends to cease operations, the permittee shall notify the department at least fourteen (14) days before the date when the facility permanently ceases accepting feedstock and do the following within 60 days:

- a. Remove equipment or disable and decontaminate equipment and materials used to operate and maintain the facility;
- b. Dispose of unused feedstocks and byproducts that cannot be marketed or used for beneficial purposes;

104.10(2) Any contamination resulting from the processing or storage of feedstock and byproducts that poses a risk to groundwater and surface water or impacts to soil must be remedied as determined by the department.

104.10(3) A permitted facility must be certified closed under subrule 104.10(4) after all feedstock and byproducts are removed from the property.

104.10(4) The permittee must send a certification statement indicating that the requirements of this rule have been met to the department within thirty (30) days after completion of facility closure.

104.10(5) After the closure certification is deemed adequate by the department, the department shall provide a written statement to the permittee that releases them from the obligation of maintaining financial assurance.

567—104.11(455D.15A) Financial assurance.

104.11(1) All persons that are required to obtain a permit under this chapter shall establish financial assurance to pay for closure of the permitted facility in the event that the permittee is unable or unwilling to do so. The financial assurance must be provided as a surety bond as specified in subrule 104.11(3) in the amount that will provide for closure of the permitted facility in the event the permittee has failed to close the permitted facility.

104.11(2) The amount that will provide for closure is determined by the maximum amount of solid feedstock and byproducts that may be stored at the facility at one (1) time, multiplied by ninety dollars (\$90) per ton and the maximum amount of any feedstock and byproducts stored in tanks or lagoons, multiplied by ten cents (10¢) per gallon, unless a demonstration of justified lower disposal costs is submitted for department approval. This demonstration will be reconsidered with subsequent renewals that still must comply with the inflation calculation required by paragraph 104.5(2) "c."

104.11(3) All surety bonds must contain the following:

- a.* The establishment of minimum bond amount determined by subrule 104.11(2).
- b.* Provision that the surety will place the amount that will provide for closure into a standby trust fund, as directed by the department, upon notice from the department that the permittee has failed to close the facility under the requirements of rule 567—104.10(455D.15A).
- c.* Provision that the surety may not cancel the bond without first sending notice of cancellation by certified mail to the permittee and the department at least one hundred twenty (120) days before the effective date of the cancellation.
- d.* Provision that the permittee may not terminate the bond without prior written authorization by the department.

104.11(4) The surety company issuing the bond must be among those listed as acceptable sureties for federal bonds in Circular 570 of the United States Department of the Treasury and authorized to do business in Iowa.

104.11(5) The surety will not be liable for deficiencies in the performance of closure by the permittee after the closure certification is deemed adequate by the department.

104.11(6) The permittee shall establish a standby trust fund to be utilized in the event the permittee fails to fulfill closure obligations and the bond guarantee is exercised. Such trust fund must be established in accordance with the following:

- a.* The establishment of a standby trust fund in the amount determined by subrule 104.11(2) for department-approved work done to close the facility.
- b.* The requirement of successor trustees to notify the department, in writing, of their appointment at least ten (10) days prior to the appointment becoming effective.
- c.* The requirement that the funded trust is irrevocable unless terminated in writing by the department.
- d.* The requirement that all signatures be notarized by a notary public commissioned to be a notary public in the state of Iowa at the time of notarization.
- e.* 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 Iowa agency.

104.11(7) A permittee shall do the following:

- a.* Notify the department 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 permittee as debtor. A permittee 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.
- b.* Reestablish financial assurance within sixty (60) days after such an event. The permitted facility cannot operate outside the sixty (60) day period without establishing a surety bond for the amount required under subrule 104.11(2).

104.11(8) 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 permit or to order final closure of the permitted facility.

104.11(9) After the closure certification is deemed adequate by the department, the permittee is released from the obligation of maintaining financial assurance under this chapter.

567—104.12(455D.15A) Variance. A request for a waiver or variance to this chapter shall be submitted in writing pursuant to 561—Chapter 10. The contents of a petition for waiver or variance shall include information pursuant to 561—10.9(17A, 455A).

These rules are intended to implement Iowa Code section 455D.15A.

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