

CHAPTER 105  
ORGANIC MATERIALS COMPOSTING FACILITIES

**567—105.1(455B,455D) General.** This chapter shall apply to the composting of solid and yard wastes. Composting facilities may include vermicomposting, turned windrows, aerated static piles, aerated in-vessel systems, or other methods approved by the department. Composting facilities existing as of June 19, 2002, must comply with the requirements of this chapter within two years or by the permit renewal date, whichever is later.

**105.1(1) Definitions.** For the purposes of this chapter, the following definitions apply:

*“Agricultural waste”* means organic materials normally discarded during the production of plants and animals from agronomic, horticultural or silvicultural operations. “Agricultural waste” includes but is not limited to manure, crop residuals, bedding, and other vegetative by-products produced during farm processing. Dead animals are not included.

*“Best management practices”* means the practices described in the most recent version of the Compost Facility Operating Guide published by the United States Composting Council or other best management practices as approved by the department.

*“Bulking agent”* means a material that contributes structure and porosity, usually a dry, rigid material such as shredded wood or tire chips.

*“Compostable”* means an organic material that undergoes degradation by biological processes during composting to yield carbon dioxide, water, inorganic compounds and biomass.

*“Compostable plastics”* means a plastic that undergoes degradation by biological processes at a rate consistent with other known compostable materials and leaves no visually distinguishable or toxic residue. Testing according to ASTM D6400-00 criteria should be used to designate compostable plastics.

*“Composting”* means the accelerated biological decomposition of organic matter under managed aerobic conditions resulting in a stable, innocuous final product.

*“Composting facility”* means all related receiving, processing, production, curing, and storage areas and necessary roads, buildings, equipment, litter control devices, pollution control devices, fire control devices, landscaping, gates, personnel and maintenance facilities, sewer and water lines, and process water.

*“Compost leachate”* means a liquid that has percolated through or drained from compost.

*“Compost maturity,”* according to Test Methods for the Examination of Composting and Compost (TMECC), means an organo-chemical state of compost that indicates the presence or lack of organic phytotoxic chemicals in stable compost. Measurements for maturity are based on the amount of volatile fatty acids present. Mature compost will have fatty acids of no more than 2 mg/g dry weight solids or as specified in the most recent version of TMECC.

*“Compost stability,”* according to TMECC, means a stage in the composting process when microbial activity is diminished with the corresponding decrease of available organic carbon and other energy sources. Stability is measured through respiration. Stable compost will have oxygen uptake rates in the range of 0-3.5 mg O<sub>2</sub>/g BVS/hr. or as specified in the most recent version of TMECC.

*“Cured compost”* means compost that is both stable and mature according to the definitions found in this chapter.

*“Curing”* means a process in which compost is further monitored to control pathogen regrowth while increasing stability and maturity.

*“Finished compost”* means cured and, if necessary, screened or refined.

*“Household organic waste”* means general household compostable items such as food residuals and paper produced on premises.

*“Infectious waste”* means waste that is infectious, including but not limited to contaminated sharps, cultures, and stocks of infectious agents, blood and blood products, pathological waste, and contaminated animal carcasses from hospitals or research laboratories.

*“Municipality”* means any city or county in the state.

*“Nuisance”* means whatever is injurious to health, indecent, or unreasonably offensive to the senses, or an obstruction to the free use of property, so as essentially to unreasonably interfere with the

comfortable enjoyment of life or property, and a civil action by ordinary proceedings may be brought to enjoin and abate the same and to recover damages sustained on account thereof.

“*Organic materials*” means any material of animal or plant origin.

“*Premises*” means a geographically contiguous property owned by a generator or noncontiguous property owned by a generator and that is connected by a controlled right-of-way to which the public does not have access. Two or more pieces of property that are geographically contiguous and divided by public or private right-of-way are a single premises.

“*Small compost facilities*” means facilities meeting the requirements set forth in rule 105.5(455B,455D).

“*Solid waste composting*” means the composting of any organic material with or without yard waste. For the purposes of this chapter, facilities exempt under 105.2(455B,455D) are not considered solid waste composting facilities. In addition, facilities in compliance with 105.4(455B,455D), 105.5(455B,455D) or 105.6(455B,455D) are not considered solid waste composting facilities. Only facilities that are required to obtain or have a permit are considered solid waste composting facilities.

“*Vector*” means a carrier organism that is capable of transmitting a pathogen from one organism to another. Vectors include, but are not limited to, birds, rats and other rodents, and insects.

“*Yard waste*” means vegetative matter such as grass clippings, leaves, garden waste, brush and trees, and any clean wood waste which is necessary as bulking agent and which is free of coatings and preservatives.

**105.1(2)** There are three different levels of compost facility regulation:

- a. Exempt operations in accordance with 105.2(455B,455D).
- b. Permit by rule. Yard waste composting facilities are exempt from permitting if operated in conformance with 105.3(455B,455D) and 105.4(455B,455D). Facilities that compost dead farm animals are exempt from permitting if operated in conformance with 105.3(455B,455D) and 105.6(455B,455D). Small quantity solid waste compost operations as defined in 105.5(455B,455D) are exempt from permitting if operated in conformance with 105.3(455B,455D) and 105.5(455B,455D).
- c. Solid waste composting. Solid waste composting facilities must obtain a permit from the department. Solid waste composting facilities involving municipal sewage sludge shall also operate in conformance with 567—Chapter 67.

**105.1(3)** Burial of yard waste at a sanitary landfill is prohibited. Acceptance of yard waste by a hauling firm or at a transfer station for burial at a sanitary landfill is also prohibited. However, yard waste that has been separated at its source from other solid waste may be accepted by a sanitary landfill for the purposes of soil conditioning or composting. Yard waste accepted by a sanitary landfill for the purposes of soil conditioning shall be used only on finished areas of the landfill that have received the final earthen cover, developed areas with intermediate cover, and restoration of soil borrow areas. Burning of yard waste at a sanitary disposal project is prohibited.

**105.1(4)** Each city and county shall, by ordinance, require persons within the city or county to separate yard waste from other solid waste generated. Municipalities which provide for collection of solid waste shall also provide for separate collection of yard waste.

**105.1(5)** Land application of yard waste shall be in conformance with 567—Chapter 121.

**567—105.2(455B,455D) Exemptions.** The following projects are exempt from this chapter. This exemption is not a defense to a nuisance action brought pursuant to Iowa Code chapter 657.

**105.2(1)** Yard waste or household organic waste composted and used on the same premises where it originated.

**105.2(2)** Composting facilities involving agricultural waste, excluding dead animals, and clean wood waste which is necessary as bulking agent and which is free of coatings and preservatives. Use of any other materials as bulking agent shall require prior approval by the department. If agricultural waste is mixed with other wastes including dead animals for the purpose of composting, then this chapter shall apply unless the other wastes have been preapproved by the department as necessary as bulking agent.

**105.2(3)** Yard waste, household organic waste, and agricultural waste generated, composted together in any combination and used on the same premises where they originated.

**567—105.3(455B,455D) General requirements for all composting facilities not exempt pursuant to 105.2(455B,455D).** This rule applies to all composting facilities not exempt under 105.2(455B,455D). Facilities exempt from permitting that do not operate in accordance with this chapter may as a result be required to obtain a solid waste composting permit. Composting facilities shall also operate in accordance with all applicable city and county ordinance and permitting requirements.

**105.3(1)** The composting facility shall be 500 feet from any existing inhabited residence, not including the residence of the person owning/operating the compost facility, at the time the permit application was received by the department. Composting must be done outside of wetlands, at least 200 feet from public wells, 100 feet from private wells, 50 feet from property lines, and 100 feet from flowing or intermittent streams, lakes, or ponds. Composting done inside the 100-year flood plain shall be in accordance with all local and department regulations including 567—71.5(455B). Sediment ponds, engineered wetlands or other constructed waterways for the purpose of pollution control are excluded from this requirement.

**105.3(2)** Composting shall be performed in a manner that minimizes the formation of compost leachate by the facility.

**105.3(3)** Measures shall be taken to prevent water from running onto the facility from adjacent land and to prevent compost leachate and runoff from leaving the composting facility. Runoff from the composting facility must be properly managed.

**105.3(4)** Facilities shall be designed, constructed, and maintained so as to minimize ponding of water or liquids. Any ponding that does occur shall be corrected through routine facility maintenance within 48 hours after the termination of the event causing the ponding.

**105.3(5)** Composting must be done on an all-weather surface of compacted soil, compacted granular aggregates, asphalt, concrete or similar relatively impermeable material that will permit accessibility during periods of inclement weather and prevent contamination of surface water and groundwater.

**105.3(6)** Solid waste which cannot be composted or which is removed during processing shall be properly disposed of. Infectious waste shall not be accepted for composting at any composting facility unless approved by the department in writing.

**105.3(7)** Solid waste materials shall be managed through the entire process in accordance with best management practices to minimize conditions such as odors, dust, noise, litter and vectors which may create nuisance conditions or a public health hazard.

**105.3(8)** Storage of cured or finished compost shall be limited to 18 months. The 18-month period may be extended with prior written approval from the department.

**105.3(9)** If compost is offered for sale as a soil conditioner or fertilizer, the compost must be registered by the department of agriculture and land stewardship under Iowa Code chapter 200, Fertilizers and Soil Conditioners. Sale shall be in compliance with all applicable federal and state laws and local ordinances and regulations.

**105.3(10)** Compost shall not be applied to land, sold or given away unless the concentration of human-made inert materials such as glass, metal, and plastic is less than 1.5 percent by dry weight.

Compost shall not be applied to land, sold or given away unless the size of any human-made inert materials is less than 13 mm (0.512 inches).

**567—105.4(455B,455D) Specific requirements for yard waste composting facilities.** Yard waste composting facility operators are encouraged to be trained, tested, and certified by a department-approved certification program upon approval of such a program by the department.

**105.4(1)** Before the composting facility commences operation, the department and the field office of the department serving the composting facility's location shall be notified in writing of the following:

- a. The location of the composting facility.
- b. Legal description of the facility.
- c. Landowner's name, telephone number, and mailing address.
- d. Responsible party's name, telephone number, and mailing address.
- e. Annual capacity of the facility.
- f. Method of composting to be employed.

g. Source of the yard waste and any necessary bulking agent. This description must include a description of service area defined in terms of municipalities wherein sources of the material are located.

**105.4(2)** The facility shall have a permanent sign posted at the entrance specifying:

- a. Name of operation.
- b. Operating hours.
- c. Materials which are accepted or the statement "All materials must have prior approval."
- d. Telephone number of 24-hour emergency contact person.

**105.4(3)** The area of the composting facility must be large enough for the volume of yard waste composted.

**105.4(4)** Yard waste must be taken out of containers before composting, unless the containers are compostable.

**105.4(5)** Aerobic conditions shall be maintained in accordance with best management practices.

**105.4(6)** An annual report for the previous fiscal year beginning July 1 and ending June 30 shall be submitted to the department by July 31 of each year. The report shall be submitted using Form 542-3276C, provided by the department, and all applicable sections of the form must be completed.

These records shall be maintained by the facility for a period of three years for inspection and evaluation by the department.

**567—105.5(455B,455D) Small composting facilities receiving off-premises materials.** Small composting facilities are exempt from obtaining a solid waste composting permit provided the facility complies with 105.3(455B,455D) and 105.5(455B,455D).

**105.5(1) Acceptable materials and amounts.** Yard waste and food residuals may be received from off premises at a total rate of two tons or less per week for composting either singly, in combination, or with agricultural waste. Any clean wood waste free of coating and preservatives may be used as a bulking agent. The two tons per week combined weight limit does not apply to bulking agent. However, the amount of bulking agent received must be appropriate for the amount of compostable materials received. Facilities composting over two tons of food residuals and yard waste per week in any combination from off premises must obtain a permit (Form 50A (542-1542A)) and adhere to the solid waste composting requirements stipulated in 105.7(455B,455D) through 105.14(455B,455D). If only agricultural wastes are collected and composted, this rule does not apply. If only yard wastes are collected and composted, this rule does not apply.

**105.5(2) Notification.** Before the composting facility commences operation, the department and the field office of the department serving the composting facility's location shall be notified in writing of the following:

- a. The location of the composting facility.
- b. Legal description of the facility.
- c. Landowner's name, telephone number, and mailing address.
- d. Responsible party's name, telephone number, and mailing address.
- e. Annual capacity of the facility.
- f. Method of composting to be employed.
- g. Source of the feedstock and any necessary bulking agent. This description must include a description of service area defined in terms of municipalities wherein sources of the material are located.

**105.5(3) Signage.** The facility shall have a permanent sign posted at the entrance specifying:

- a. Name of operation.
- b. Operating hours.
- c. Materials which are accepted or the statement "All materials must have prior approval."
- d. Telephone number of 24-hour emergency contact person.

**105.5(4) Reporting.** An annual report for the previous fiscal year beginning July 1 and ending June 30 shall be submitted to the department by July 31 of each year. The report shall be submitted using Form 542-3276C, provided by the department, and all applicable sections of the form must be completed.

These records shall be maintained by the facility for a period of three years for evaluation by the department.

**567—105.6(455B,455D) Specific requirements for composting of dead farm animals.** Operators of dead farm animal composting facilities are encouraged to be trained, tested, and certified by a department-approved certification program upon approval of such a program by the department. A facility that composts dead farm animals is exempt from permitting if the following operating requirements are met and the facility is in compliance with 105.3(455B,455D). Businesses or individuals that are neither the owner nor operator of any of the sites where dead farm animals are generated and that want to compost dead farm animals must obtain a permit in accordance with 567—105.8(455B,455D).

**105.6(1)** Before commencing operation, the operator is encouraged to notify the department field office with jurisdiction over the facility. The department may provide general assistance, such as locating bulking agents and providing advice in regard to siting considerations such as pad location, sizing and design, to facilities notifying the department and requesting assistance.

**105.6(2)** Farm animals known or suspected to have died from an infectious disease that can be spread by scavengers or insects or that died from a reportable disease shall be disposed of in accordance with the requirements of the Iowa department of agriculture and land stewardship and the department.

**105.6(3)** Transportation vehicles shall be constructed to prevent the release of mortality contaminated materials under normal operating conditions. The most direct haul route that avoids biosecurity risks shall be utilized.

**105.6(4)** The composting facility shall be designed to accommodate at least the average annual death loss for all sites using the composting facility. Facility design shall also take into account space requirements for managing raw materials (e.g., additional bedding and bulking agents needed for mortality composting) and finished compost.

**105.6(5)** Animal mortalities from a catastrophic event, such as a fire or electrical outage, shall not be composted until the department field office is contacted and arrangements are approved for the appropriate treatment or disposal of the animals. The facility shall contact the department field office with jurisdiction over the facility as soon as possible after such a catastrophic event occurs to receive approval of the disposal option.

**105.6(6)** Dead farm animals shall be incorporated into the composting process within 24 hours of death. An adequate base layer (from 12 to 24 inches thick, depending on the size and number of dead farm animals) with 6 to 12 inches of bulking agent between carcasses and an additional 12 inches of cover material shall be maintained around carcasses at all times to control mortality leachate and odors and to prevent access by scavenging domestic and wild animals.

**105.6(7)** Dead farm animals shall not be removed from composting until all soft tissue is fully decomposed.

**105.6(8)** Compost (including bones that have not fully decomposed) shall be applied to cropland in a manner that minimizes the runoff into a water of the state. Application of the compost to lands other than cropland shall require prior approval by the department.

**567—105.7(455B,455D) Permit requirements for solid waste composting facilities.**

**105.7(1)** *Permit required.* Solid waste composting facilities shall not be constructed or operated without a permit from the department. As part of the sanitary disposal project permit issuance procedures, these facilities must meet comprehensive planning requirements. Since these facilities serve as alternatives to landfilling, comprehensive planning requirements are minimal and are satisfied through the information provided in the permit application submittal and by compliance with the reporting requirements set forth in 105.12(455B,455D). If a solid waste composting facility is formally part of a planning area's integrated waste management system, the operator must participate in that area's planning activities and the facility must be included in all plan submittal documents. The issuance of a permit by the department in no way relieves the applicant of the responsibility of complying with all other local, state, or federal statutes, ordinances, and rules or other requirements applicable to the construction and operation of a solid waste composting facility.

**105.7(2)** *Construction and operation.* All solid waste composting facilities shall be constructed and operated according to the plans and specifications as approved by the department and the conditions of the permit. The approved plans and specifications shall constitute a term of the permit.

**105.7(3) *Transfer of title and permit.*** If title to a solid waste composting facility is transferred, then the department shall transfer the permit within 60 days if the department finds that the following requirements have been met:

*a.* The title transferee has applied in writing to the department within 30 days of the transfer of title to request a transfer of the permit.

*b.* The permitted facility is in compliance with the rules and conditions of the permit.

**105.7(4) *Permit conditions.*** Any permit may be issued subject to conditions specified in writing by the department that are necessary to ensure that the sanitary disposal project can be constructed and operated in compliance with Iowa Code chapters 455B and 455D and these rules.

**105.7(5) *Effect of revocation.*** If a permit held by any public or private agency for a solid waste composting facility is revoked by the director, then no new permit shall be issued to that agency for that sanitary disposal project for a period of one year from the date of revocation. This subrule shall not prohibit the issuance of a permit for the sanitary disposal project to another public or private agency.

**105.7(6) *Inspection prior to commencing operation.*** The department shall be notified 30 days prior to scheduled completion of a solid waste composting facility and when the construction has been completed. The department shall then complete an inspection of the facility to determine if the sanitary disposal project has been constructed in accordance with the plans and specifications and permit requirements. No solid waste shall be accepted by the facility until it has been inspected and approved by the department.

**105.7(7) *Duration and renewal of permits.*** Solid waste composting facility permits shall be issued for a period of three years, and are renewable for similar terms, unless otherwise specified pursuant to 105.7(5).

**105.7(8) *Request for and approval of permit renewal.*** Requests for permit renewals shall be in writing and must be filed at least 90 days before the expiration of the current permit and submitted on a Form 50A to the department. The department may request that additional information be submitted for review in order to make a permit renewal decision. Comprehensive plan update requirements are satisfied through the information provided in the permit renewal application submittal and by compliance with the reporting requirements set forth in 105.12(455B,455D). If a solid waste composting facility is formally part of a planning area's integrated waste management system, the operator must participate in that area's plan update submittals. The department shall renew the permit if, after a review and inspection of the facility and its compliance history, the department finds that the facility is in compliance with its current permit and these rules. If the facility is found not to be in compliance with its current permit and these rules, then the sanitary disposal project shall be brought into compliance, or placed on a compliance schedule approved by the department, before the permit is renewed pursuant to 105.7(5).

**105.7(9) *Facility expansion.*** Prior to the facility's expanding the amount or types of materials accepted, the facility shall make a request in writing and obtain approval from the department for an amendment to the permit.

**105.7(10) *Process change.*** Prior to a change in the facility's process, the facility shall make a request in writing and obtain approval from the department for an amendment to the permit.

**567—105.8(455B,455D) Permit application requirements for solid waste composting facilities.**

**105.8(1)** A permit application for a new facility shall include a completed Form 50A (542-1542A) and a map or aerial photograph. This map or aerial photograph shall identify:

- a.* The boundaries of the facility.
- b.* Wells, streams, creeks, rivers, ponds, sinkholes, and drainage wells.
- c.* North or other principal compass points.
- d.* Zoning and land use within one-half mile of the closest portion of the facility.
- e.* Haul routes to and from the facility with load limits or other restrictions.
- f.* Homes and buildings within one-half mile of the closest portion of the facility.
- g.* Section lines or other legal boundaries.

*h.* Any nearby runway used or planned to be used by turbojet or piston-type aircraft at FAA-certified airports.

**105.8(2)** Design requirements. Design documents must be prepared by an Iowa-licensed professional engineer (Iowa Code chapter 542B) and must include the following:

*a.* Equipment to be installed, litter control devices, pollution control devices, fire control devices, landscaping, gates, personnel and maintenance facilities, sewer and water lines, and process water, and dimensions, details, and capacities of the proposed receiving, processing, production, curing, and storage areas.

*b.* Design calculations justifying the size of the composting areas. The areas for composting must be adequate for the volume of solid waste being composted in accordance with best management practices.

*c.* Descriptions, specifications, and capacities of proposed equipment to be used in composting.

*d.* Flow diagram of all operating steps.

*e.* Composition of the operating surface. Receiving, processing, production, and curing must take place on a constructed, impervious base that can support the load of the equipment used under all weather conditions. The permeability coefficient of the base must be less than  $1 \times 10^{-7}$  cm/sec (0.00028 feet/day). Storage areas for cured/finished compost must permit accessibility during periods of inclement weather.

*f.* Dimensions, details, and capacities of storm water run-on and runoff management systems of the composting facility. The facility may need a storm water permit.

*g.* Proof of the applicant's ownership of the site and legal entitlement to use the site as a composting facility.

**105.8(3)** The operating plan shall provide the following:

*a.* Method of composting.

*b.* Duration of composting with a time frame for receiving, processing, production, curing, and storage.

*c.* Description of storage of raw materials including quantity and types.

*d.* Description of the types, amounts, and sources of wastes to be received and processed daily. This description must include a description of service area defined in terms of municipalities wherein sources of the material are located.

*e.* Description of the aeration method and the aeration frequency to be used to maintain aerobic conditions in accordance with best management practices.

*f.* Description of the methods to minimize and manage odors, dust, vectors, noise and litter.

*g.* Description of the specific procedures to be followed in case of equipment breakdown, maintenance downtime, and fire in equipment, composting material or buildings to include methods to be used to remove or dispose of accumulated waste and burned or damaged material.

*h.* Plans for using or marketing the finished compost.

*i.* Method(s) of disposing of collected storm water.

*j.* Method(s) of maintaining storm water management systems to maintain design volume and to locate and repair leaks in the system.

*k.* Description of the monitoring, sampling, and analysis procedures and schedule for testing the composting process and product including sampling frequency, sample size and number, and sample locations. A facility-specific time-temperature monitoring plan for pathogen kill shall be included in the operating plan.

**567—105.9(455B,455D) Specific operating requirements for permitted solid waste composting facilities.** In addition to the following, all permitted solid waste composting facilities shall comply with 105.3(455B,455D).

**105.9(1)** Access.

*a.* Access to the facility shall be restricted with a lockable gate at the entrance to the facility.

*b.* Access to the facility shall be allowed only when an employee, agent or representative of the facility is on duty.

c. Emergency access to the facility shall be provided. Fire lanes shall be maintained to provide access for firefighting equipment as required by the local fire department.

**105.9(2)** The facility shall have a permanent sign posted at the entrance specifying:

- a. Name of operation.
- b. Operating hours.
- c. Materials which are accepted or the statement "All materials must have prior approval."
- d. Telephone number of 24-hour emergency contact person.

**105.9(3)** All materials received must be incorporated into the composting process within 24 hours of receipt unless storage of these materials is specified in the plan and approved by the department.

**105.9(4)** Sample collection, preservation, and analysis must be done in a manner which ensures valid and representative results. Facilities should follow the most recent version of the Test Methods for the Examination of Composting and Compost guidelines or other testing procedures as approved by the department. Unless otherwise proposed in the operating plan and authorized in the permit, the permit holder shall test at a minimum:

- a. Twice weekly temperature readings of compost piles, batches, and windrows. Compost must be held at a temperature above 55 degrees Celsius (131 degrees Fahrenheit) for an appropriate amount of time, in accordance with best management practices, in order to achieve pathogen reduction.
- b. Weekly moisture levels of compost piles, batches, and windrows.
- c. Testing of the finished product. Compost shall not be applied to land, sold or given away for household use unless the following requirements are met. If the following requirements are not met, compost must be applied according to 567—Chapter 121.

(1) The density of fecal coliform shall be less than 1000 most probable number (MPN) per gram of total solids (dry weight basis) or the density of *Salmonella* sp. bacteria in compost shall be less than three MPN per four grams of total solids (dry weight basis).

(2) The concentrations of human-made inert materials comply with 105.3(10), and the concentrations of all metals are less than the following:

Metal	Concentration mg/kg dry weight
Arsenic (As)	41
Cadmium (Cd)	39
Copper (Cu)	1500
Lead (Pb)	300
Mercury (Hg)	17
Nickel (Ni)	420
Selenium (Se)	36
Zinc (Zn)	2800

**567—105.10(455B,455D) Operator certification for permitted solid waste composting facilities.** All permitted solid waste composting facilities shall meet the following requirement. The person responsible for daily operation of the facility shall be certified by a department-approved program upon approval of such a program by the department. The certification must be renewed every three years.

**567—105.11(455B,455D) Record-keeping requirements for solid waste composting facilities.** All permitted solid waste composting facilities shall meet the following requirements. The following records shall be maintained by the facility for a period of three years and at the facility at all times and shall be submitted to the department upon request:

1. Analytical results described in 105.9(4). These results shall be recorded on a department-approved reporting form.
2. Types and weight of compostable materials and bulking agent, in tons, accepted at the facility annually.
3. Weight of compost, in tons, removed from the facility annually.



4. A copy of the plan, the permit, annual reports, and the current storm water pollution prevention plan.

**567—105.12(455B,455D) Reporting requirements for solid waste composting facilities.** An annual report for the previous fiscal year beginning July 1 and ending June 30 shall be submitted to the department by July 31 of each year by all permitted solid waste composting facilities. The report shall be submitted using Form 542-3276C, provided by the department, and all applicable sections of the form must be completed.

**567—105.13(455B,455D) Closure requirements for solid waste composting facilities.** All permitted solid waste composting facilities shall meet the following requirements. For each composting facility, a closure plan shall be submitted to the department containing a description of the steps necessary to close the facility. A permit shall not be issued unless the closure plan is approved.

**105.13(1)** An updated closure plan, including a schedule for closure, shall be submitted to the department at least 60 calendar days prior to the proposed termination date for the facility.

**105.13(2)** Unless an alternative schedule is approved by the department, within six months of the facility's ceasing operation, all waste and unfinished and finished compost shall be removed from the premises.

**105.13(3)** Facilities beneficially reusing material in order to comply with 105.13(2) are required to submit in written form all agreements for this reuse. This beneficial reuse shall include names of parties involved, amount of material utilized, and cost per ton. The closure plan will not be approved until these agreements are submitted to and approved by the department. The department shall also be notified of any changes in the agreements.

**105.13(4)** Upon closure, all permitted solid waste composting facilities shall perform the following activities:

- a. Properly dispose of all organic material, solid waste and litter at the premises.
- b. Lock all doors, gates, entrances, and exits.
- c. Report the completion of these activities to the local political jurisdiction, the department, and the department field office serving the composting facility.

**567—105.14(455B,455D) Composting facility financial assurance.** Permitted solid waste composting facilities receiving more than 5,000 tons of feedstock annually, bulking agent excluded, must obtain and submit a financial assurance instrument to the department for waste materials received and stockpiled by the facility in accordance with this rule. The financial assurance instrument shall provide monetary funds to properly dispose of any preprocessed and postprocessed stockpiled materials that may remain at a facility due to the owner's or operator's failure to properly close the site within 30 days of permit suspension, termination, revocation, or expiration.

**105.14(1)** *No permit without financial assurance.* The department shall not issue or renew a permit to an owner or operator of a solid waste composting facility until a financial assurance instrument has been submitted to and approved by the department.

**105.14(2)** *Proof of compliance.* Proof of the establishment of the financial assurance instrument and compliance with this rule, including a current closure cost estimate, shall be submitted to the department within 30 days of the close of the permit holder's first fiscal year that begins after June 19, 2002, or at the time of application for a permit for a new solid waste composting facility. The owner or operator must provide continuous coverage for closure and submit proof of compliance, including an updated closure cost estimate, with each permit renewal thereafter until released from this requirement by the department.

**105.14(3)** *Use of one financial assurance instrument for multiple permitted activities.* Solid waste composting facilities required to maintain financial assurance pursuant to any other provisions of 567—Chapters 100 to 123 may satisfy the requirements of this rule by the use of one financial assurance instrument if the permit holder ensures that the instrument provides financial assurance for an amount at least equal to the current cost estimates for closure of all sanitary disposal project activities covered.

**105.14(4) *Financial assurance amounts required.*** The estimate submitted to the department must be certified by an Iowa-licensed professional engineer and must account for at least the following factors determined by the department to be minimal necessary costs for closure:

*a.* Transportation costs, which include the cost to load the material, and total tip fees to properly dispose of the maximum tonnage of received materials that could be managed and stockpiled by the compost facility. Also included shall be the costs of properly removing any wastewater held at the facility, or

*b.* Cost of a beneficial reuse option, approved pursuant to subrule 105.13(3), for the total amount of material that could be managed and stockpiled by the composting facility. If the total amount of material will not be beneficially reused, the remainder of the cost shall be calculated according to paragraph 105.14(4)“*a.*” Also included shall be the costs of properly removing any wastewater held at the facility.

*c.* The costs for maintaining financial assurance pursuant to any other provisions of 567—Chapters 100 to 123, if any, in accordance with subrule 105.14(3).

**105.14(5) *Acceptable financial assurance instruments.*** The financial assurance instrument shall be established in an amount equal to the cost estimate prepared in accordance with subrule 105.14(4) and shall not be canceled, revoked, disbursed, released, or allowed to terminate without the approval of the department. Financial assurance may be provided by cash in the form of a secured trust fund or local government dedicated fund, surety bond, letter of credit, or corporate or local government guarantee as follows:

*a. Secured trust fund.* The owner or operator of a solid waste composting facility or entity serving as a guarantor may demonstrate financial assurance for closure by establishing a secured trust fund that conforms to the requirements of this paragraph.

(1) The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency. The fund shall be restricted for the sole purpose of funding closure activities at the facility, and a copy of the trust agreement must be submitted to the department and placed in the facility’s official files.

(2) A secured trust fund shall name the department of natural resources as the entity authorized to draw funds from the trust, subject to the provision of proper notification to the trust officer of failure by the permittee to properly close the site within 30 days of permit suspension, termination, revocation, or expiration.

(3) Moneys in the fund shall not be assigned for the benefit of creditors with the exception of the state.

(4) Moneys in the fund shall not be used to pay any final judgment against a permit holder arising out of the ownership or operation of the site during its active life or after closure.

(5) The owner or operator or another person authorized to conduct closure activities may request reimbursement from the trustee for closure expenditures as they are incurred. Requests for reimbursement shall be granted by the trustee only if sufficient funds are remaining in the trust fund to cover the remaining costs of closure and if documentation of the justification for reimbursement has been submitted to the department for prior approval.

(6) If the balance of the trust fund exceeds the current cost estimate for closure at any time, the owner or operator may request withdrawal of the excess funds from the trustee so long as the withdrawal does not cause the balance to be reduced below the amount of the current cost estimate.

*b. Local government dedicated fund.* The owner or operator of a publicly owned solid waste composting facility or a local government serving as a guarantor may demonstrate financial assurance for closure by establishing a dedicated fund that conforms to the requirements of this paragraph.

(1) The fund shall be dedicated by state constitutional provision or local government statute, charter, ordinance, resolution or order as a restricted fund to pay for closure costs arising from the operation of the solid waste composting facility.

(2) A copy of the document establishing the dedicated fund must be submitted to the department and placed in the facility’s official files.

(3) If the balance of the dedicated fund exceeds the current cost estimate for closure at any time, the owner or operator may withdraw excess funds so long as the withdrawal does not cause the balance to be reduced below the amount of the current cost estimate.

*c. Surety bond.* A surety bond must be written by a company authorized by the commissioner of insurance to do business in the state. The surety bond shall comply with the following:

(1) The bond shall be in a form approved by the commissioner of insurance and shall be payable to the department of natural resources.

(2) The bond shall be specific to a particular facility for the purpose of properly disposing of any solid waste that may remain on site due to the owner's or operator's failure to properly close the site within 30 days of permit suspension, termination, revocation, or expiration.

(3) The owner or operator shall provide the department with a statement from the surety with each permit application renewal, noting that the bond is paid and current for the permit period for which the owner or operator has applied for renewal.

*d. Letter of credit.* The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency.

(1) The owner or operator must submit to the department a copy of the letter of credit and place a copy in the facility's official files.

(2) A letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the name and address of the facility and the amount of funds assured, must be included with the letter of credit submitted to the department and placed in the facility's files.

(3) The letter of credit must be irrevocable and must be issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless the issuing institution has canceled the letter of credit by sending notice of cancellation by certified mail to the owner or operator and to the department 90 days in advance of cancellation. When such notice is provided, the owner or operator shall, within 60 days, provide to the department adequate proof of alternative financial assurance, notice of withdrawal of cancellation, or proof of a deposit of a sum equal to the amount of the letter of credit into a secured trust fund that meets the requirements of paragraph 105.14(5) "a." If the owner or operator has not complied with this subrule within the 60-day time period, the issuer of the letter of credit shall deposit a sum equal to the amount of the letter of credit into the secured trust fund established by the owner or operator. The provision of funds by the issuer of the letter of credit shall be considered an issuance of a loan to the owner or operator, and the terms of that loan shall be governed by the letter of credit or subsequent agreement between those parties. The state shall not be considered a party to this credit transaction.

*e. Corporate guarantee.* An owner or operator may meet the requirements of this rule by obtaining a written guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, an owner or operator whose parent corporation is also the parent corporation of the owner or operator, or an owner or operator with a "substantial business relationship" with the owner or operator.

(1) The terms of the written guarantee must provide that within 30 days of the owner's or operator's failure to perform closure of a facility covered by the guarantee, the guarantor will:

1. Perform closure or pay a third party to perform closure as required (performance guarantee);
2. Establish a fully funded secured trust fund as specified in paragraph 105.14(5) "a" in the name of the owner or operator (payment guarantee); or
3. Establish an alternative financial assurance instrument in the name of the owner or operator as required by this rule.

(2) The guarantor must satisfy one of the following three conditions:

1. A current rating for its senior unsubordinated debt of AAA, AA, A, or BBB as issued by Standard & Poor's or Aaa, Aa, A, or Baa as issued by Moody's; or
2. A ratio of less than 1.5 comparing total liabilities to net worth; or
3. A ratio of greater than 0.10 comparing the sum of net income plus depreciation, depletion and amortization, minus \$10 million, to total liabilities.

(3) The tangible net worth of the guarantor must be greater than the sum of the current closure cost estimate and any other environmental obligations, including other financial assurance guarantees.

(4) The guarantor must have assets amounting to at least the sum of the current closure cost estimate and any other environmental obligations, including other financial assurance guarantees.

(5) Record-keeping and reporting requirements. The guarantor must submit the following records to the department and place a copy in the facility's official files:

1. A copy of the written guarantee between the owner or operator and the guarantor.

2. A letter signed by a certified public accountant and based upon a certified audit that:

- Lists all the current cost estimates covered by a guarantee including, but not limited to, cost estimates required by subrule 105.14(4); cost estimates required for municipal solid waste management facilities pursuant to 40 CFR Part 258; cost estimates required for UIC facilities under 40 CFR Part 144, if applicable; cost estimates required for petroleum underground storage tank facilities under 40 CFR Part 280, if applicable; cost estimates required for PCB storage facilities under 40 CFR Part 761, if applicable; and cost estimates required for hazardous waste treatment, storage, and disposal facilities under 40 CFR Parts 264 and 265, if applicable; and

- Provides evidence demonstrating that the guarantor meets the conditions of subparagraphs 105.14(5) "e"(2), (3) and (4).

3. A copy of the independent certified public accountant's unqualified opinion of the guarantor's financial statements for the latest completed fiscal year. In order for the guarantor to be eligible to use the guarantee, the guarantor's financial statements must receive an unqualified opinion from the independent certified public accountant. An adverse opinion or disclaimer of opinion shall be cause for disallowance of this instrument. A qualified opinion related to the demonstration of financial assurance may, at the discretion of the department, be cause for disallowance. If the department does not allow use of the corporate guarantee, the owner or operator must provide alternative financial assurance that meets the requirements of this rule.

*f. Local government guarantee.* An owner or operator may demonstrate financial assurance for closure by obtaining a written guarantee provided by a local government or jointly provided by the members of an agency established pursuant to Iowa Code chapter 28E.

(1) The terms of the written guarantee must provide that within 30 days of the owner's or operator's failure to perform closure of a facility covered by the guarantee, the guarantor will:

1. Perform closure or pay a third party to perform closure as required (performance guarantee);

2. Establish a fully funded secured trust fund as specified in paragraph 105.14(5) "a" in the name of the owner or operator (payment guarantee); or

3. Establish an alternative financial assurance instrument in the name of the owner or operator as required by this rule.

(2) The guarantor must satisfy one of the following requirements:

1. If the guarantor has outstanding, rated, general obligation bonds that are not secured by insurance, a letter of credit, or other collateral or guarantee, the guarantor must have a current rating of Aaa, Aa, A, or Baa, as issued by Moody's, or AAA, AA, A, or BBB, as issued by Standard & Poor's, on all such general obligation bonds; or

2. The guarantor must satisfy each of the following financial ratios based on the guarantor's most recent audited annual financial statement: a ratio of cash plus marketable securities to total expenditures greater than or equal to 0.05, and a ratio of annual debt service to total expenditures less than or equal to 0.20.

(3) The guarantor must prepare its financial statements in conformity with generally accepted accounting principles or other comprehensive basis of accounting and have its financial statements audited by an independent certified public accountant or the office of the auditor of the state of Iowa. The financial statement shall be in the form prescribed by the office of the auditor of the state of Iowa.

(4) A guarantor is not eligible to assure its obligations if:

1. The guarantor is currently in default on any outstanding general obligation bonds; or

2. The guarantor has any outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard & Poor's; or

3. The guarantor operated at a deficit equal to 5 percent or more of total annual revenue in each of the past two fiscal years; or

4. The guarantor receives an adverse opinion or disclaimer of opinion from the independent certified public accountant or office of the auditor of the state of Iowa auditing its financial statement. A qualified opinion that is related to the demonstration of financial assurance may, at the discretion of the department, be cause for disallowance of this mechanism; or

5. The closure costs to be assured are greater than 43 percent of the guarantor's total annual revenue.

(5) The local government guarantor must include disclosure of the closure costs assured through the guarantee in its next annual audit report prior to the initial receipt of waste at the facility or prior to cancellation of an alternative financial assurance instrument, whichever is later. For the first year the guarantee is used to assure costs at a particular facility, the reference may instead be placed in the guarantor's official files until issuance of the next available annual audit report if timing does not permit the reference to be incorporated into the most recently issued annual audit report or budget. For closure costs, conformance with Governmental Accounting Standards Board Statement 18 ensures compliance with this public notice component.

(6) The local government owner or operator must submit to the department the following items:

1. A copy of the written guarantee between the owner or operator and the local government serving as guarantor for the closure costs at the facility.

2. A copy of the guarantor's most recent annual financial audit report indicating compliance with the financial ratios required by numbered paragraph 105.14(5) "f"(2)"2," if applicable, and the requirements of subparagraphs 105.14(5) "f"(3) and (4).

3. A letter signed by the local government's chief financial officer that lists all the current cost estimates covered by the guarantor, as described in subrule 105.14(4); and that provides evidence and certifies that the local government meets the conditions of subparagraphs 105.14(5) "f"(2), (3), (4) and (5).

**105.14(6) *Financial assurance cancellation and permit suspension.***

a. A financial assurance instrument may be terminated by the owner or operator only if the owner or operator substitutes alternate financial assurance prior to cancellation, as specified in this rule, or if the owner or operator is no longer required to demonstrate financial responsibility in accordance with this rule.

b. A financial assurance instrument shall be continuous in nature until canceled by the financial assurance provider or until the department gives written notification to the owner, operator, and financial assurance provider that the covered site has been properly closed. The financial assurance provider shall give at least 90 days' notice in writing to the owner or operator and the department in the event of any intent to cancel the instrument.

c. Within 60 days of receipt of a written notice of cancellation of financial assurance by the financial assurance provider, the owner or operator must provide the department an alternative financial assurance instrument. If a means of continued financial assurance is not provided within that 60 days, the department shall suspend the permit.

d. The owner or operator shall perform proper closure within 30 days of the permit suspension. For the purpose of this rule, "proper closure" means completion of all items pursuant to rule 105.13(455B,455D) and subrule 105.14(4).

e. If the owner or operator does not properly close the site within the 30-day period allowed, the department shall file a claim with the financial assurance instrument provider to collect the amount of funds necessary to properly close the site.

f. An owner or operator who elects to terminate a permitted activity, whose renewal application has been denied, or whose permit has been suspended or revoked for cause must submit within 30 days of the termination of the permit a schedule for completing proper closure of the terminated activity. Closure completion cannot exceed 60 days from the date of termination of the permit.

g. The director may also request payment from any financial assurance provider for the purpose of completing closure when the following circumstances exist:

(1) The owner or operator is more than 15 days late in providing a schedule for closure or for meeting any date in the schedule for closure.

(2) The owner or operator declares an economic inability to comply with this rule, either by sending written notification to the director or through an action such as, but not limited to, filing for bankruptcy.

**567—105.15(455B,455D) Variances.** A request for a variance must be submitted in writing to the department pursuant to 561—Chapter 10.

These rules are intended to implement Iowa Code sections 455B.304 and 455D.9.

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