

Regulations Applicable to Manure and Livestock Composting

K.A.R.	Topic
<u>28-29-25c.</u>	Manure composting
<u>28-29-25d.</u>	Livestock composting

Kansas Administrative Regulations

Agency 28

Kansas Department of Health and Environment

Article 29.—Solid Waste Management

28-29-25c. Manure composting. For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts manure and has a composting area of one-half acre or less.

Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts manure and has a composting area larger than one-half acre. On-site storage of manure shall not be considered composting.

(a) Facility design. The owner or operator of each facility that composts manure shall design and construct the facility to meet the following requirements:

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The facility shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.

(C) Leachate control shall be provided wherever leachate is generated.

(D) The composting area shall be graded to prevent ponding of liquids.

(E) The surface of the composting area shall be capable of supporting all equipment used.

(2) Facility access.

(A) At each facility that composts manure that is brought in from off-site, the following information shall be posted on one or more signs:

(i) Facility name;

(ii) permit number;

(iii) site hours;

(iv) traffic flow;

(v) a list of the materials appropriate for composting; and

(vi) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(C) Facility roads shall be constructed to allow access for managing the composting operation. Manure composting facilities shall be exempt from the all-weather access road requirement prescribed in K.A.R. 28-29-23(e).

(3) Capacity and storage. The facility shall have the capacity to store the following materials:

(A) Incoming materials waiting to be processed;

(B) the materials being processed; and

(C) the finished compost, not to exceed 18 months' production.

(4) Separation distances. For the purposes of this regulation, "animal unit," "habitable structure," and "wildlife refuge" have the same meaning as set forth in K.S.A. 65-171d, and amendments thereto.

(A) Each facility that composts livestock manure, other than swine manure, shall meet or exceed the following separation distances from any habitable structure in existence when the facility begins operations:

(i) 1,320 feet for facilities composting manure from 300 to 999 animal units; and

(ii) 4,000 feet for facilities composting manure from 1,000 or more animal units.

(B) Each facility that composts swine manure shall meet or exceed the following separation distances from any habitable structure or city, county, state, or federal park in existence when the facility begins operations:

- (i) 1,320 feet for facilities composting manure from 300 to 999 animal units;
 - (ii) 4,000 feet for facilities composting manure from 1,000 to 3,724 animal units; and
 - (iii) 5,000 feet for facilities composting manure from 3,725 or more animal units.
- (C) Each facility that composts swine manure shall meet or exceed the following separation distances from any wildlife refuge:
- (i) 10,000 feet for facilities composting manure from 1,000 to 3,724 animal units; and
 - (ii) 16,000 feet for facilities composting manure from 3,725 or more animal units.
- (D) For each manure composting operation located at a confined feeding facility, the separation distances as set forth in K.S.A. 65-171d and amendments thereto shall apply.
- (5) Exceptions to the separation distances.
- (A) The separation distance requirements of paragraphs (a)(4)(A) and (B) of this regulation shall not apply if the owner or operator obtains written agreement from all owners of habitable structures that are within the separation distance, stating that the owners of the habitable structures are aware of the operation and have no objections to the operation. The written agreement shall be filed in the office of the register of deeds of the county in which the habitable structure is located.
- (B) The separation distance requirements of paragraph (a)(4)(A) of this regulation may be reduced by the secretary if one of the following conditions applies:
- (i) No substantial objection from owners of habitable structures within the separation distance is received in response to public notice.
 - (ii) The board of county commissioners of the county where the composting operation is located submits a written request seeking a reduction of the separation distances.
- (C) The separation distance requirements of paragraphs (4)(B)(i) and (ii) of this regulation may be reduced by the secretary if one of the following conditions applies:
- (i) No substantial objection is received in response to notice given by certified mail, return response requested, to owners of all habitable structures within the separation distance.
 - (ii) The board of county commissioners of the county where the composting operation is located submits a written request seeking a reduction of separation distances.
 - (iii) The secretary determines that technology exists that meets or exceeds the effect of the required separation distance and the composting operation will be using the technology.
- (D) The separation distance requirements of paragraph (4)(B)(iii) of this regulation may be reduced by the secretary if one of the following conditions applies:
- (i) No substantial objection is received in response to notice given by certified mail, return response requested, to owners of all habitable structures within the separation distance.
 - (ii) The secretary determines that technology exists that meets or exceeds the effect of the required separation distance and the composting operation will be using the technology.
- (E) For each manure composting operation located at a confined feeding facility, exceptions to the separation distances as set forth in K.S.A. 65-171d and amendments thereto shall apply.
- (b) Facility operations. The owner or operator of each facility that composts manure shall perform the following:
- (1) Minimize odors;
 - (2) control disease vectors, dust, litter, and noise;
 - (3) segregate incoming waste from finished compost;
 - (4) limit public access to hours when an attendant or any operating personnel are at the facility;
 - (5) begin processing incoming waste by the end of the working day; and
 - (6) remove all finished compost within 18 months of the completion of the composting process.
- (c) Facility closure. The owner or operator of each facility that composts manure shall perform the following:
- (1) Notify the department, in writing, at least 60 days before closure; and

(2) remove all materials from the facility within six months of the last receipt of compostable material.

(d) Registration. Each owner or operator of a facility that composts manure and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department.

(e) Permit applications. The owner or operator of each facility that composts manure and has a composting area larger than one-half acre shall submit a permit application to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. The applicant shall include the following items with the permit application:

(1) Facility design plan. The facility design plan shall contain all of the following items:

(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey indicating the facility boundary and the property boundary;

(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;

(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency; and

(D) a detailed drawing of the facility that indicates the location of the following features:

(i) Roads;

(ii) the existing and final grades and contours;

(iii) storm water control;

(iv) buildings and equipment to be installed;

(v) utilities;

(vi) access control; and

(vii) all other structures.

(2) Operations plan. The operations plan shall contain the following information:

(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;

(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;

(C) the sources of waste to be received;

(D) the methods to control traffic and to expedite unloading;

(E) the methods for measuring incoming waste;

(F) the methods to control the types of waste received;

(G) the methods for removing noncompostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;

(H) the location of disposal sites for noncompostable wastes;

(I) the method of composting;

(J) a list of equipment to be used;

(K) a description of additives used in the process;

(L) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;

(M) the proposed end use of product;

(N) the methods to minimize, manage, and monitor odors;

(O) disease vector, dust, litter, and noise control measures;

(P) leachate and national pollutant discharge elimination system storm water control measures;

(Q) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;

(R) a contingency plan for events including equipment failure, power outages, natural disasters, receipt of

prohibited materials, or other similar interruptions of normal activities; and

(S) a fire protection and control plan.

(3) Closure plan. The closure plan shall include the following information:

(A) The steps necessary to close the facility;

(B) the final surface contours; and

(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective Oct. 1, 1999.)

28-29-25d. Livestock composting. For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts livestock, including chickens and turkeys, and has a composting area of one-half acre or less. Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts livestock, including chickens and turkeys, and has a composting area larger than one-half acre.

(a) The owner or operator of each facility that composts livestock shall design and construct the facility to meet the following requirements.

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The facility shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.

(C) Leachate control shall be provided wherever leachate is generated.

(D) The composting area shall be graded to prevent ponding of liquids.

(E) The surface of the composting area shall be capable of supporting all equipment used.

(F) The facility shall be constructed with either a floor or a roof that meets one of the following requirements:

(i) The floor shall be composed of a layer of material that is at least one foot thick and has a hydraulic conductivity no greater than 10^{-7} cm/sec, or the facility shall be designed to provide the same level of protection to the groundwater; or

(ii) the receiving, processing, and curing areas shall be covered by a roof, or the facility shall be designed to provide the same level of protection from the weather.

(2) Facility access.

(A) At each facility that composts livestock that is brought in from off-site, the following information shall be posted on one or more signs:

(i) Facility name;

(ii) permit number;

(iii) site hours;

(iv) traffic flow;

(v) a list of the materials appropriate for composting; and

(vi) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(C) Facility roads shall be constructed to allow adequate access for managing the composting operation.

Facilities that compost livestock shall be exempt from the all-weather access road requirement prescribed in K.A.R. 28-29-23(e).

(3) Capacity and storage. The facility shall have the capacity to store the following materials:

(A) Incoming materials waiting to be processed;

(B) the materials being processed; and

(C) the finished compost, not to exceed 18 months' production.

(4) Separation distances. For the purposes of this regulation, "animal unit," "animal unit capacity," "habitable structure," and "wildlife refuge" have the same meaning as set forth in K.S.A. 65-171d, and amendments thereto.

(A) Each facility that composts livestock from one or more confined feeding facilities, other than confined feeding facilities for swine, shall meet or exceed the following separation distances from any habitable structure in existence when the facility begins operations:

- (i) 1,320 feet for facilities composting livestock from one or more confined feeding facilities with a combined animal unit capacity of 300 to 999; and
- (ii) 4,000 feet for facilities composting livestock from one or more confined feeding facilities with a combined animal unit capacity of 1,000 or more.

(B) Each facility that composts livestock from one or more confined feeding facilities for swine shall meet or exceed the following separation distances from any habitable structure or city, county, state, or federal park in existence when the facility begins operations:

- (i) 1,320 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 300 to 999;
- (ii) 4,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 1,000 to 3,724; and
- (iii) 5,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 3,725 or more.

(C) Each facility that composts livestock from one or more confined feeding facilities for swine shall meet or exceed the following separation distances from any wildlife refuge:

- (i) 10,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 1,000 or 3,724; and
- (ii) 16,000 feet for facilities composting swine from one or more confined feeding facilities with combined animal unit capacity of 3,725 or more.

(D) Exceptions to the separation distances set forth in K.S.A. 65-171d, and amendments thereto, shall apply.

(b) Facility operations. The owner or operator of each facility that composts livestock shall perform the following:

- (1) Minimize odors;
- (2) control disease vectors, dust, litter, and noise;
- (3) ensure that dead animals are not visible from municipal roads or habitable structures;
- (4) protect the facility from scavenging by animals;
- (5) segregate incoming waste from finished compost;
- (6) begin processing incoming waste by the end of the working day;
- (7) limit public access to hours when an attendant or any operating personnel are at the facility; and
- (8) remove all finished compost within 18 months of the completion of the composting process.

(c) Facility closure. The owner or operator of each facility that composts livestock shall perform the following:

- (1) Notify the department, in writing, at least 60 days before closure;
- (2) remove all material from the facility within 10 days of ceasing operation; and
- (3) clean all containers, equipment, machines, floors, and site surfaces that have been in contact with dead animals or solid waste.

(d) Registration. Each owner or operator of a facility that composts livestock and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department.

(e) Permit applications. The owner or operator of each facility that composts livestock and has a composting area larger than one-half acre shall submit a permit application to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. The applicant shall include the following items with the permit application:

- (1) Facility design plan. The facility design plan shall contain the following items:

- (A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;
 - (B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;
 - (C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency;
 - (D) plan and profile views of the facility indicating the following features:
 - (i) Roads;
 - (ii) the existing and final grades and contours;
 - (iii) storm water control;
 - (iv) buildings and equipment to be installed;
 - (v) utilities;
 - (vi) access control; and
 - (vii) all other structures; and
 - (E) information on the permeability of the floor structure.
- (2) Operations plan. The operations plan shall contain the following information:
- (A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;
 - (B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;
 - (C) the sources of waste to be received;
 - (D) the methods to control traffic and to expedite unloading;
 - (E) the methods for measuring incoming waste;
 - (F) the methods to control the types of waste received;
 - (G) the methods for removing non-compostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;
 - (H) the location of disposal sites for non-compostable wastes;
 - (I) the method of composting;
 - (J) a list of equipment to be used;
 - (K) a description of any additives used in the process;
 - (L) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;
 - (M) the proposed end-use of compost;
 - (N) the methods to minimize, manage, and monitor odors;
 - (O) disease vector, dust, litter, and noise control measures;
 - (P) leachate and national pollutant discharge elimination system storm water control measures;
 - (Q) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;
 - (R) a contingency plan for events including equipment failure, power outages, natural disasters, fire, receipt of prohibited materials, or similar interruptions of normal activities; and
 - (S) a fire protection and control plan.
- (3) Closure plan. The closure plan shall include the following information:
- (A) The steps necessary to close the facility;
 - (B) the final surface contours; and
 - (C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1997 Supp. 65-3406 and L. 1998, ch. 143, sec. 37; effective Jan. 8, 1999.)