CHAPTER 459A

ANIMAL AGRICULTURE COMPLIANCE ACT FOR OPEN FEEDLOT OPERATIONS

SUBCHAPTER I

GENERAL PROVISIONS

459A.101 Title.
459A.102 Definitions.
459A.103 Special terms.
459A.104 General authority — commission and department — purpose — compliance.
459A.105 Exception to regulation.

SUBCHAPTER II

DOCUMENTATION

459A.201 Document processing requirements.
459A.202 Operating permit requirements. Repealed by its own terms; 2006 Acts, ch 1088, §2.
459A.203 and 459A.204 Reserved.
459A.205 Permit requirements — settled open feedlot effluent basins and alternative technology systems.
459A.206 Settled open feedlot effluent basins — soils and hydrogeologic report.
459A.207 Construction certification.
459A.208 Nutrient management plan — requirements.

SUBCHAPTER III

DESIGN STANDARDS AND CONSTRUCTION REQUIREMENTS

459A.301 Settled open feedlot effluent basins — construction design standards — rules.
459A.302 Settled open feedlot effluent basins — construction requirements.
459A.303 Alternative technology systems.

SUBCHAPTER IV

OPEN FEEDLOT EFFLUENT CONTROL

459A.401 Open feedlot effluent control methods.
459A.402 Open feedlot effluent control — alternative control practices.
459A.403 Solids stockpiling.
459A.404 through 459A.409 Reserved.
459A.410 Effluent application requirements.
459A.411 Discontinuance of operations.

SUBCHAPTER V

ENFORCEMENT

459A.501 General.
459A.502 Violations — civil penalty.

SUBCHAPTER I

GENERAL PROVISIONS

459A.101 Title.

This chapter shall be known and may be cited as the *"Animal Agriculture Compliance Act for Open Feedlot Operations"*.

2005 Acts, ch 136, §1

459A.102 Definitions.

As used in this chapter, unless the context otherwise requires:

1. *"Alternative technology system"* or *"alternative system"* means a system for open feedlot effluent control as provided in section 459A.303.
2. *"Animal"* means the same as defined in section 459.102.
3. *"Animal feeding operation"* means the same as defined in section 459.102.
4. *"Animal unit"* means the same as defined in section 459.102.
5. *"Animal unit capacity"* means a measurement used to determine the maximum number of animal units that may be maintained as part of an open feedlot operation.
6. *"ASTM international"* means the American society for testing and materials international.
7. *"Commission"* means the environmental protection commission created pursuant to section 455A.6.
8. *"Department"* means the department of natural resources.
9. *"Designated area"* means a known sinkhole, a cistern, an abandoned well, an

unplugged agricultural drainage well, an agricultural drainage well surface inlet, a drinking water well, a designated wetland, or a water source. However, *"designated area"* does not include a terrace tile inlet or surface tile inlet other than an agricultural drainage well surface tile inlet.

10. *"Designated wetland"* means the same as defined in section 459.102.

11. *"Document"* means any form required to be processed by the department under this chapter, including but not limited to applications for permits or related materials as provided in section 459A.205, soils and hydrogeologic reports as provided in section 459A.206, construction certifications as provided in section 459A.207, nutrient management plans as provided in section 459A.208, and notices required under this chapter.

12. *"Grassed waterway"* means a natural or constructed channel that is shaped or graded and established with suitable vegetation for the stable conveyance of surface water runoff.

13. *"High-quality water resource"* means the same as defined in section 459.102.

14. *"Nutrient management plan"* or *"plan"* means a plan which provides for the management of open feedlot effluent, including the application of effluent as provided in section 459A.208.

15. *"Open feedlot"* means a lot, yard, corral, building, or other area used to house animals in conjunction with an open feedlot operation.

16. *"Open feedlot effluent"* or *"effluent"* means a combination of manure, precipitation-induced runoff, or other runoff from an open feedlot before its settleable solids have been removed.

17. *"Open feedlot operation"* or *"operation"* means an unroofed or partially roofed animal feeding operation if crop, vegetation, or forage growth or residue cover is not maintained as part of the animal feeding operation during the period that animals are confined in the animal feeding operation.

18. *"Open feedlot operation structure"* means an open feedlot, settled open feedlot effluent basin, a solids settling facility, or an alternative technology system. *"Open feedlot operation structure"* does not include a manure storage structure as defined in section 459.102.

19. *"Operating permit"* means a permit which regulates the operation of an open feedlot operation as issued by the department or the United States environmental protection agency, including as provided in state law or pursuant to the federal Water Pollution Control Act, Title 33, U.S.C. ch. 26, as amended, and 40 C.F.R. pt. 122.

20. *"Research college"* means an accredited public or private college or university, including but not limited to a university under the control of the state board of regents as provided in chapter 262, or a community college under the jurisdiction of a board of directors for a merged area as provided in chapter 260C, if the college or university performs research or experimental activities regarding animal agriculture or agronomy.

21. *"Settleable solids"* or *"solids"* means that portion of open feedlot effluent that meets all of the following requirements:

a. The solids do not flow perceptibly under pressure.

b. The solids are not capable of being transported through a mechanical pumping device designed to move a liquid.

c. The constituent molecules of the solids do not flow freely among themselves but do show the tendency to separate under stress.

22. *"Settled open feedlot effluent"* or *"settled effluent"* means a combination of manure, precipitation-induced runoff, or other runoff originating from an open feedlot after its settleable solids have been removed.

23. *"Settled open feedlot effluent basin"* or *"basin"* means an impoundment which is part of an open feedlot operation, if the primary function of the impoundment is to collect and store settled open feedlot effluent.

24. *"Solids settling facility"* means a basin, terrace, diversion, or other structure or solids removal method which is part of an open feedlot operation and which is designed and operated to remove settleable solids from open feedlot effluent. A *"solids settling facility"* does not include a basin, terrace, diversion, or other structure or solids removal method which retains the liquid portion of open feedlot effluent for more than seven consecutive days following a precipitation event.

25. *"Stockpile"* means to store solids from an open feedlot operation outside of an open feedlot operation structure or outside of an area that drains to an open feedlot operation structure.

26. *"Water of the state"* means the same as defined in section 455B.171.

27. *"Water source"* means the same as defined in section 459.102.

28. *"Waters of the United States"* means the same as defined in 40 C.F.R., pt. 122, § 2, as that section exists on July 1, 2005.

2005 Acts, ch 136, §2; 2006 Acts, ch 1010, §120; 2006 Acts, ch 1088, §1, 6
Referred to in §202.1, 459.102, 459B.102, 579B.1
Subsections 9, 10, 12, 13, 25, and 27 take effect April 26, 2006, and apply retroactively to February 13, 2006; 2006 Acts, ch 1088, §6

459A.103 Special terms.

For purposes of this chapter, all of the following shall apply:

1. *a.* Two or more open feedlot operations under common ownership or common management are deemed to be a single open feedlot operation if they are adjacent or utilize a common area or system for open feedlot effluent disposal.

b. For purposes of determining whether two or more open feedlot operations are adjacent, all of the following shall apply:

(1) At least one open feedlot operation structure must be constructed on or after July 17, 2002.

(2) An open feedlot operation structure which is part of one open feedlot operation is separated by less than one thousand two hundred fifty feet from an open feedlot operation structure which is part of the other open feedlot operation.

c. For purposes of determining whether two or more open feedlot operations are under common ownership, a person must hold an interest in each of the open feedlot operations as any of the following:

(1) A sole proprietor.

(2) A joint tenant or tenant in common.

(3) A holder of a majority equity interest in a business association as defined in section 202B.102, including but not limited to as a shareholder, partner, member, or beneficiary.

An interest in the open feedlot operation under subparagraph (2) or (3) which is held directly or indirectly by the person's spouse or dependent child shall be attributed to the person.

d. For purposes of determining whether two or more open feedlot operations are under common management, a person must have significant control of the management of the day-to-day operations of each of the open feedlot operations. Common management does not include control over a contract livestock facility by a contractor, as defined in section 202.1.

2. An open feedlot operation structure is *"constructed"* when any of the following occurs:

a. Excavation commences for a proposed open feedlot operation structure or proposed expansion of an existing open feedlot operation structure.

b. Forms for concrete are installed for a proposed open feedlot operation structure or the proposed expansion of an existing open feedlot operation structure.

c. Piping for the movement of open feedlot effluent is installed within or between open feedlot operation structures as proposed or proposed to be expanded.

3. *a.* In calculating the animal unit capacity of an open feedlot operation, the animal unit capacity shall not include the animal unit capacity of any confinement feeding operation building as defined in section 459.102, which is part of the open feedlot operation.

b. Notwithstanding paragraph *"a"*, only for purposes of determining whether an open feedlot operation must obtain an operating permit, the animal unit capacity of the animal feeding operation includes the animal unit capacities of both the open feedlot operation and the confinement feeding operation if the animals in the open feedlot operation and the confinement feeding operation are all in the same category or type of animals as used in the definitions of large and medium concentrated animal feeding operations in 40 C.F.R. pt. 122. In all other respects the confinement feeding operation shall be governed by chapter 459 and the open feedlot operation shall be governed by this chapter.

4. An open feedlot operation structure is abandoned if the open feedlot operation structure has been razed, removed from the site of an open feedlot operation, filled in with earth, or converted to uses other than an open feedlot operation structure so that it cannot be used as an open feedlot operation structure without significant reconstruction.

5. All distances between locations or objects provided in this chapter shall be measured in feet from their closest points.

6. The regulation of open feedlot effluent shall be construed as also regulating settled open feedlot effluent and solids.

7. *"Seasonal high-water table"* means the seasonal high-water table as determined by a professional engineer pursuant to the following requirements:

a. The seasonal high-water table shall be determined by evaluating soil profile characteristics such as color and mottling from soil corings, soil test pits, or other soil profile evaluation methods, water level data from soil corings or other sources, and other pertinent information.

b. If a drainage tile line to artificially lower the seasonal high-water table is installed as provided in section 459A.302, the level to which the seasonal high-water table will be lowered will be the seasonal high-water table.

2005 Acts, ch 136, §3; 2006 Acts, ch 1030, §45; 2008 Acts, ch 1191, §144, 147, 148

459A.104 General authority — commission and department — purpose — compliance.

1. The commission shall establish by rule adopted pursuant to chapter 17A, requirements relating to the construction, including expansion, or operation of open feedlot operations, including related open feedlot operation structures.

2. Any provision referring generally to compliance with the requirements of this chapter as applied to open feedlot operations also includes compliance with requirements in rules adopted by the commission pursuant to this section, orders issued by the department as authorized under this chapter, and the terms and conditions applicable to licenses, certifications, permits, or nutrient management plans required under this chapter.

3. The purpose of this chapter is to provide requirements relating to the construction, including the expansion, and operation of open feedlot operations, and the control of open feedlot effluent, which shall be construed to supplement applicable provisions of chapter 459. If there is a conflict between the provisions of this chapter and chapter 459, the provisions of this chapter shall prevail.

2005 Acts, ch 136, §4
Referred to in §459A.105

459A.105 Exception to regulation.

1. Except as provided in subsection 2, the requirements of this chapter which regulate open feedlot operations, including rules adopted by the department pursuant to section 459A.104, shall not apply to research activities and experiments performed under the authority and regulations of a research college, if the research activities and experiments relate to an open feedlot operation structure or the disposal or treatment of effluent originating from an open feedlot operation.

2. The requirements of section 459A.410, including rules adopted by the department under that section, apply to research activities and experiments performed under the authority and regulations of a research college.

2005 Acts, ch 136, §5
Referred to in §459A.205

SUBCHAPTER II

DOCUMENTATION

459A.201 Document processing requirements.

1. The department shall adopt and promulgate forms required to be completed in order

to comply with this chapter, including forms for documents that the department shall make available on the internet in the same manner as provided in section 459.302.

2. *a.* The department shall provide for procedures for the receipt, filing, processing, and return of documents in an electronic format in the same manner as provided in section 459.302. The department shall provide for authentication of the documents that may include electronic signatures as provided in chapter 554D.

b. The department shall to every extent feasible provide for the processing of documents required under this subchapter using electronic systems in the same manner as required in section 459.302.

3. *a.* The department shall approve or disapprove an application for a construction permit as provided in section 459A.205 within sixty days after receiving the permit application. However, the applicant may deliver a notice requesting a continuance. Upon receipt of a notice, the time required for the department to act upon the application shall be suspended for the period provided in the notice, but for not more than thirty days after the department's receipt of the notice. The applicant may submit more than one notice. However, the department may provide that an application is terminated if no action is required by the department for one year following delivery of the application to the department. The department may also provide for a continuance when it considers the application. The department shall provide notice to the applicant of the continuance. The time required for the department to act upon the application shall be suspended for the period provided in the notice, but for not more than thirty days. However, the department shall not provide for more than one continuance.

b. A nutrient management plan as provided in section 459A.208 shall be approved or disapproved as part of a construction permit application pursuant to section 459A.205. If the nutrient management plan is not part of an application for a construction permit, the nutrient management plan shall be approved or disapproved within sixty days from the date that the department receives the nutrient management plan.

2005 Acts, ch 136, §6
Referred to in §459A.208

459A.202 Operating permit requirements. Repealed by its own terms; 2006 Acts, ch 1088, § 2.

459A.203 and 459A.204 Reserved.

459A.205 Permit requirements — settled open feedlot effluent basins and alternative technology systems.

1. The department shall approve or disapprove applications for permits for the construction, including the expansion, of settled open feedlot effluent basins and alternative technology systems, as provided in this chapter. The department's decision to approve or disapprove a permit for the construction of a basin or alternative system shall be based on whether the application is submitted according to procedures and standards required by this chapter. A person shall not begin construction of a basin or alternative system requiring a permit under this section, unless the department first approves the person's application and issues to the person a construction permit.

2. The department shall issue a construction permit upon approval of an application. The department shall approve the application regardless of whether the applicant is required to be issued a construction permit.

3. The department shall not approve an application for a construction permit unless the applicant submits all of the following:

a. For an open feedlot operation submitting an application for a construction permit on or after April 30, 2007, a nutrient management plan as provided in section 459A.208.

b. An engineering report, construction plans, and specifications prepared by a licensed professional engineer or the natural resources conservation service of the United States department of agriculture certifying that the construction of the settled open feedlot effluent

basin or alternative technology system complies with the construction design standards required in this chapter.

4. An open feedlot operation must be issued a construction permit prior to any of the following:

a. The construction, including expansion, of a settled open feedlot effluent basin or alternative technology system if the open feedlot operation is required to be issued an operating permit.

b. The department has previously issued the open feedlot operation a construction permit and any of the following applies:

(1) The animal unit capacity of the open feedlot operation will be increased to more than the animal unit capacity approved by the department in the previous construction permit.

(2) The volume of open feedlot effluent stored at the open feedlot operation would be more than the volume approved by the department in the previous construction permit.

(3) The open feedlot operation was discontinued for twenty-four months or more and the animal unit capacity would be one thousand animal units or more.

5. Prior to submitting an application for a construction permit the applicant may submit a conceptual design and site investigation report to the department for review and comment.

6. The application for the construction permit shall include all of the following:

a. The name of the owner of the open feedlot operation and the name of the open feedlot operation, including a mailing address and telephone number for the owner and the operation.

b. The name of the contact person for the open feedlot operation, including the person's mailing address and telephone number.

c. The location of the open feedlot operation.

d. A statement providing that the application is for any of the following:

(1) The construction or expansion of a settled open feedlot effluent basin or alternative technology system for an existing open feedlot operation which is not expanding.

(2) The construction or expansion of a settled open feedlot effluent basin or alternative technology system for an existing open feedlot operation which is expanding.

(3) The construction of a settled open feedlot effluent basin or alternative technology system for a proposed new open feedlot operation.

e. The animal unit capacity for each animal species in the open feedlot operation before and after the proposed construction.

f. An engineering report, construction plans, and specifications prepared by a licensed professional engineer or by the United States natural resources conservation service, for the settled open feedlot operation effluent basin or alternative technology system.

g. A soils and hydrogeologic report of the site, as required in section 459A.206.

h. Information, including but not limited to maps, drawings, and aerial photos that clearly show the location of all of the following:

(1) The open feedlot operation and all existing and proposed settled open feedlot effluent basins or alternative technology systems, clean water diversions, and other pertinent features or structures.

(2) Any other open feedlot operation under common ownership or common management and located within one thousand two hundred fifty feet of the open feedlot operation.

(3) A public water supply system as defined in section 455B.171 or a drinking water well which is located within a distance from the operation as prescribed by rules adopted by the department.

i. For an open feedlot operation implementing an alternative technology system as provided in section 459A.303, the applicant shall submit all of the following:

(1) Information showing that the proposed open feedlot operation meets criteria for siting as established by rules adopted by the department. However, if the site does not meet the criteria, the information shall show substantially equivalent alternatives to meeting such criteria.

(2) The results of predictive computer modeling for the proposed alternative technology system to determine suitability of the proposed site for the system and to predict performance

of the alternative technology system as compared to the use of a settled open feedlot effluent basin.

(3) A conceptual design of the proposed alternative technology system, as developed by a licensed engineer.

7. *a.* Except as provided in paragraph *"b"*, a construction permit for an open feedlot operation expires as follows:

(1) If construction does not begin within one year after the date the construction permit is issued.

(2) If construction is not completed within three years after the date the construction permit is issued.

b. If requested, the department may grant an extension of time to begin or complete construction upon a showing of just cause by the construction permit applicant.

8. The department may suspend or revoke a construction permit, modify the terms or conditions of a construction permit, or disapprove a request to extend the time to begin or complete construction as provided in this section, if it determines that the operation of the open feedlot operation constitutes a clear, present, and impending danger to public health or the environment.

9. This section does not require a person to be issued a permit to construct a settled open feedlot effluent basin or alternative technology system if the basin or system is part of an open feedlot operation which is owned by a research college conducting research activities as provided in section 459A.105.

2005 Acts, ch 136, §7; 2006 Acts, ch 1088, §3, 6

Referred to in §459A.102, 459A.201, 459A.206, 459A.207, 459A.208, 459A.301, 459A.302

2006 amendment to subsection 3, paragraph a, takes effect April 26, 2006, and applies retroactively to February 13, 2006; 2006 Acts, ch 1088, §6

459A.206 Settled open feedlot effluent basins — soils and hydrogeologic report.

A settled open feedlot effluent basin required to be constructed pursuant to a construction permit issued pursuant to section 459A.205 shall meet design standards as required by a soils and hydrogeologic report.

The report shall be submitted with the construction permit application as provided in section 459A.205. The report shall include all of the following:

1. A description of the steps to determine the soils and hydrogeologic conditions at the proposed construction site, a description of the geologic units encountered, and a description of the effects of the soil and groundwater elevation and direction of flow on the construction and operation of the basin.

2. The subsurface soil classification of the site. A subsurface soil classification shall be based on ASTM international designation D-2487-92 or D-2488-90.

3. The results of at least three soil corings reflecting the continuous soil profile taken for each basin. The soil corings shall be taken and used in determining subsurface soil characteristics and groundwater elevation and direction of flow of the proposed site for construction. The soil corings shall be taken as follows:

a. By a qualified person ordinarily engaged in the practice of taking soil cores and in performing soil testing.

b. At locations that reflect the continuous soil profile conditions existing within the area of the proposed basin, including conditions found near the corners and the deepest point of the proposed basin. The soil corings shall be taken to a minimum depth of ten feet below the bottom elevation of the basin.

c. By a method such as hollow stem auger or other method that identifies the continuous soil profile and does not result in the mixing of soil layers.

2005 Acts, ch 136, §8

Referred to in §459A.102, 459A.205

459A.207 Construction certification.

1. The owner of an open feedlot operation who is issued a construction permit for a settled open feedlot effluent basin as provided in section 459A.205 after July 1, 2005, shall submit to

the department a construction certification from a licensed professional engineer certifying all of the following:

a. The basin was constructed in accordance with the design plans submitted to the department as part of an application for a construction permit pursuant to section 459A.205. If the actual construction deviates from the approved design plans, the construction certification shall identify all changes and certify that the changes were consistent with all applicable standards of this section.

b. The basin was inspected by the licensed professional engineer after completion of construction and before commencement of operation.

2. A written record of an investigation for drainage tile lines, including the findings of the investigation and actions taken to comply with subchapter III, shall be submitted as part of the construction certification.

2005 Acts, ch 136, §9
Referred to in §459A.102, 459A.302

459A.208 Nutrient management plan — requirements.

1. The owner of an open feedlot operation which has an animal unit capacity of one thousand animal units or more or which is required to be issued an operating permit shall develop and implement a nutrient management plan meeting the requirements of this section.

2. Not more than one open feedlot operation shall be covered by a single nutrient management plan.

3. A person shall not remove open feedlot effluent from an open feedlot operation structure which is part of an open feedlot operation for which a nutrient management plan is required under this section, unless the department approves a nutrient management plan as required in this section. The department may adopt rules allowing a person to remove open feedlot effluent from an open feedlot operation structure until the nutrient management plan is approved or disapproved by the department according to terms and conditions required by rules adopted by the department.

4. The department shall not approve an application for a permit to construct a settled open feedlot effluent basin unless the owner of the open feedlot operation applying for approval submits a nutrient management plan together with the application for the construction permit as provided in section 459A.205. The owner shall also submit proof that the owner has published a notice for public comment as provided in this section. The department shall approve or disapprove the nutrient management plan as provided in section 459A.201.

5. Prior to approving or disapproving a nutrient management plan as required in this section, the department may receive comments exclusively to determine whether the nutrient management plan is submitted according to procedures required by the department and that the nutrient management plan complies with the provisions of this chapter.

a. The owner of the open feedlot operation shall publish a notice for public comment in a newspaper having a general circulation in the county where the open feedlot operation is or is proposed to be located and in the county where open feedlot effluent, which originates from the open feedlot operation, may be applied under the terms and conditions of the nutrient management plan.

b. The notice for public comment shall include all of the following:

(1) The name of the owner of the open feedlot operation submitting the nutrient management plan.

(2) The name of the township where the open feedlot operation is or is proposed to be located and the name of the township where open feedlot effluent originating from the open feedlot operation may be applied.

(3) The animal unit capacity of the open feedlot operation.

(4) The time when and the place where the nutrient management plan may be examined as provided in section 22.2.

(5) Procedures for providing public comment to the department. The notice shall also include procedures for requesting a public hearing conducted by the department. The

department is not required to conduct a public hearing if it does not receive a request for the public hearing within ten days after the first publication of the notice for public comment as provided in this subsection. If such a request is received, the public hearing must be conducted within thirty days after the first date that the notice for public comment was published.

(6) A statement that a person may acquire information relevant to making comments under this subsection by accessing the department's internet website. The notice for public comment shall include the address of the department's internet website as required by the department.

c. The department shall maintain an internet website where persons may access information relevant to making comments under this subsection. The department may include an electronic version of the nutrient management plan as provided in section 459A.201. The department shall include information regarding the time when, the place where, and the manner in which persons may participate in a public hearing as provided in this subsection.

6. A nutrient management plan must be authenticated by the owner of the open feedlot operation as required by the department in accordance with section 459A.201.

7. A nutrient management plan shall include all of the following:

a. Restrictions on the application of open feedlot effluent based on all of the following:

(1) Calculations necessary to determine the land area required for the application of open feedlot effluent from an open feedlot operation based on nitrogen use levels in order to obtain optimum crop yields according to a crop schedule specified in the nutrient management plan, and according to requirements adopted by the department.

(2) A phosphorus index established pursuant to section 459.312.

b. Information relating to the application of the open feedlot effluent, including all of the following:

(1) Nutrient levels of the open feedlot effluent.

(2) Application methods, the timing of the application, and the location of the land where the application occurs.

c. If the application is on land other than land owned or rented for crop production by the owner of the open feedlot operation, the plan shall include a copy of each written agreement executed by the owner of the open feedlot operation and the landowner or the person renting the land for crop production where the open feedlot effluent may be applied.

d. An estimate of the open feedlot effluent volume or weight produced by the open feedlot operation.

e. Information which shows all of the following:

(1) There is adequate storage for open feedlot effluent, including procedures to ensure proper operation and maintenance of the storage structures.

(2) The proper management of animal mortalities to ensure that animals are not disposed of in an open feedlot operation structure or a treatment system that is not specifically designed to treat animal mortalities.

(3) Surface drainage prior to contact with an open feedlot structure is diverted, as appropriate, from the open feedlot operation.

(4) Animals kept in the open feedlot operation do not have direct contact with any waters of the United States.

(5) Chemicals or other contaminants handled on-site are not disposed of in an open feedlot operation structure or a treatment system that is not specifically designed to treat such chemicals or contaminants.

8. If an open feedlot operation uses an alternative technology system as provided in section 459A.303, the nutrient management plan is not required to provide for settled effluent that enters the alternative technology system.

9. The owner of an open feedlot operation who is required to develop and implement a

nutrient management plan shall maintain a current nutrient management plan and maintain records sufficient to demonstrate compliance with the nutrient management plan.

2005 Acts, ch 136, §10; 2006 Acts, ch 1030, §46, 47; 2006 Acts, ch 1088, §4, 6
Referred to in §459A.102, 459A.201, 459A.205
2006 amendment to subsection 1 is effective April 26, 2006, and applies retroactively to February 13, 2006; 2006 Acts, ch 1088, §6

SUBCHAPTER III

DESIGN STANDARDS AND CONSTRUCTION REQUIREMENTS

459A.301 Settled open feedlot effluent basins — construction design standards — rules.

If the department requires that a settled open feedlot effluent basin be constructed according to construction design standards, regardless of whether the department requires the owner to be issued a construction permit under section 459A.205, any construction design standards for the basin shall be established by rules as provided in chapter 17A that exclusively account for special design characteristics of open feedlot operations and related basins, including but not limited to the dilute composition of settled open feedlot effluent as collected and stored in the basins.

2005 Acts, ch 136, §11

459A.302 Settled open feedlot effluent basins — construction requirements.

A settled open feedlot effluent basin required to be constructed pursuant to a construction permit issued pursuant to section 459A.205 shall meet all of the following requirements:

1. *a.* Prior to constructing a settled open feedlot effluent basin, the site for the basin shall be investigated for a drainage tile line by the owner of the open feedlot operation. The investigation shall be made by digging a core trench to a depth of at least six feet deep from ground level at the projected center of the berm of the basin. If a drainage tile line is discovered, one of the following solutions shall be implemented:

(1) The drainage tile line shall be rerouted around the perimeter of the basin at a distance of at least twenty-five feet horizontally separated from the outside edge of the berm of the basin. For an area of the basin where there is not a berm, the drainage tile line shall be rerouted at least fifty feet horizontally separated from the edge of the basin.

(2) The drainage tile line shall be replaced with a nonperforated tile line under the basin floor. The nonperforated tile line shall be continuous and without connecting joints. There must be a minimum of three feet between the nonperforated tile line and the basin floor.

b. A written record of the investigation shall be submitted as part of the construction certification required under section 459A.207.

2. *a.* The settled open feedlot effluent basin shall be constructed with a minimum separation of two feet between the top of the liner of the basin and the seasonal high-water table.

b. If a drainage tile line around the perimeter of the basin is installed a minimum of two feet below the top of the basin liner to artificially lower the seasonal high-water table, the top of the basin's liner may be a maximum of four feet below the seasonal high-water table. The seasonal high-water table may be artificially lowered by gravity flow tile lines or other similar system. However, the following shall apply:

(1) Except as provided in subparagraph (2), an open feedlot operation shall not use a nongravity mechanical system that uses pumping equipment.

(2) If the open feedlot operation was constructed before July 1, 2005, the operation may continue to use its existing nongravity mechanical system that uses pumping equipment or it may construct a new nongravity mechanical system that uses pumping equipment. However, an open feedlot operation that expands the area of its open feedlot on or after April 1, 2011, shall not use a nongravity mechanical system that uses pumping equipment.

3. Drainage tile lines may be installed to artificially lower the seasonal high-water table at a settled open feedlot effluent basin, if all of the following conditions are satisfied:

a. A device to allow monitoring of the water in the drainage tile lines and a device to allow

shutoff of the flow in the drainage tile lines are installed, if the drainage tile lines do not have a surface outlet accessible on the property where the settled open feedlot effluent basin is located.

b. Drainage tile lines are installed horizontally at least twenty-five feet away from the settled open feedlot effluent basin. Drainage tile lines shall be placed in a vertical trench and encased in granular material which extends upward to the level of the seasonal high-water table.

4. A settled open feedlot effluent basin shall be constructed with at least four feet between the bottom of the basin and a bedrock formation.

5. A settled open feedlot effluent basin constructed on a floodplain or within a floodway of a river or stream shall comply with rules of the department.

6. The liner of a settled open feedlot effluent basin shall comply with all of the following:

a. The liner shall comply with any of the following permeability standards:

(1) The liner shall be constructed to have a percolation rate that shall not exceed one-sixteenth inch per day at the design depth of the basin as determined by percolation tests conducted by the professional engineer. If a clay soil liner is used, the liner shall be constructed with a minimum thickness of twelve inches or the minimum thickness necessary to comply with the percolation rate in this section, whichever is greater.

(2) The liner shall be constructed at optimum moisture content not less than ninety-five percent of the maximum density as determined by a standard five-point proctor test performed at the site of the open feedlot operation by a professional engineer. If a clay soil liner is used, the liner shall be constructed with a minimum thickness of twelve inches.

b. If a synthetic liner is used, the liner shall be installed to comply with the percolation rate required in this section.

7. The owner of an open feedlot operation using a settled open feedlot effluent basin shall inspect the berms of the basin at least semiannually for evidence of erosion. If the inspection reveals erosion which may impact the basin's structural stability or the integrity of the basin's liner, the owner shall repair the berms.

2005 Acts, ch 136, §12
Referred to in §459A.103, 459A.303

459A.303 Alternative technology systems.

In lieu of using a settled open feedlot effluent basin as provided in section 459A.302 to meet the open feedlot effluent control requirements of section 459A.401, an open feedlot operation may use an alternative technology system for open feedlot effluent control.

1. The alternative technology system must provide an equivalent level of open feedlot effluent control as would be achieved by using a settled open feedlot effluent basin.

2. The department shall adopt rules establishing requirements for the construction and operation of alternative technology systems.

2005 Acts, ch 136, §13
Referred to in §459A.102, 459A.205, 459A.208

SUBCHAPTER IV

OPEN FEEDLOT EFFLUENT CONTROL

459A.401 Open feedlot effluent control methods.

An open feedlot operation shall provide for the management of open feedlot effluent by using an open feedlot effluent control method as follows:

1. All settleable solids from open feedlot effluent shall be removed prior to discharge into a water of the state.

a. The settleable solids shall be removed by use of a solids settling facility. The construction of a solids settling facility is not required where existing site conditions provide for removal of settleable solids prior to discharge into a water of the state.

b. The removal of settleable solids shall be deemed to have occurred when the velocity of

flow of the open feedlot effluent has been reduced to less than point five feet per second for a minimum of five minutes. A solids settling facility shall have sufficient capacity to store settled solids between periods of land application and to provide required flow-velocity reduction for open feedlot effluent flow volumes resulting from a precipitation event of less intensity than a ten-year, one-hour frequency event. A solids settling facility which receives open feedlot effluent shall provide a minimum of one square foot of surface area for each eight cubic feet of open feedlot effluent per hour resulting from a ten-year, one-hour frequency precipitation event.

2. This subsection shall apply to an open feedlot operation which is required to be issued an operating permit.

a. An open feedlot operation in compliance with the inspection and recordkeeping requirements of 40 C.F.R. pt. 122 and 40 C.F.R. pt. 412 applicable to the operation may discharge open feedlot effluent into any waters of the United States due to a precipitation event, if any of the following apply:

(1) For an open feedlot operation that houses cattle, other than veal cattle, the operation is designed, constructed, operated, and maintained to not discharge open feedlot effluent resulting from a twenty-five-year, twenty-four-hour precipitation event into any waters of the United States.

(2) For an open feedlot operation that houses veal calves, swine, chickens, or turkeys, the operation is designed, constructed, operated, and maintained to not discharge open feedlot effluent resulting from a one-hundred-year, twenty-four-hour precipitation event into any waters of the United States.

b. If the open feedlot operation is designed, constructed, and operated in accordance with the requirements of an open feedlot effluent control system as provided in rules adopted by the department, the operation shall be deemed to be in compliance with this section, unless a discharge from the operation causes a violation of state water quality standards as provided in chapter 455B, division III.

3. The following shall apply to an open feedlot operation which has an animal unit capacity of one thousand animal units or more:

a. (1) The open feedlot operation shall not discharge open feedlot effluent from an open feedlot operation structure into any waters of the United States, unless the discharge is pursuant to an operating permit.

(2) The open feedlot operation shall not be required to be issued an operating permit if the operation does not discharge open feedlot effluent into any waters of the United States.

b. The control of open feedlot effluent originating from the open feedlot operation may be accomplished by the use of a solids settling facility, settled open feedlot effluent basin, alternative technology system, or any other open feedlot effluent control structure or practice approved by the department. The department may require the diversion of surface drainage prior to contact with an open feedlot operation structure. Solids shall be settled from open feedlot effluent before the effluent enters a settled open feedlot effluent basin or alternative technology system.

2005 Acts, ch 136, §14; 2007 Acts, ch 126, §82; 2008 Acts, ch 1191, §145, 148
Referred to in §459A.303, 459A.402

459A.402 Open feedlot effluent control — alternative control practices.

If because of topography or other factors related to the site of an open feedlot operation it is economically or physically impractical to comply with open feedlot effluent control requirements using an open feedlot control method in section 459A.401, the department shall allow the use of other open feedlot effluent control practices if those practices will provide an equivalent level of open feedlot effluent control that would be achieved by using an open feedlot effluent control method pursuant to section 459A.401.

2005 Acts, ch 136, §15

459A.403 Solids stockpiling.

A person may stockpile solids, subject to all of the following:

1. *a.* The person shall not stockpile the solids within the following distances:

(1) Four hundred feet from a designated area other than a high-quality water resource.

(2) Eight hundred feet from a high-quality water resource.

b. The person shall not stockpile solids within two hundred feet from a terrace tile inlet or surface tile inlet unless the solids are maintained in a manner that will not allow precipitation-induced runoff to drain from the solids to the terrace tile inlet or surface tile inlet.

c. The person shall not stockpile solids in a grassed waterway or where water pools on the soil surface.

d. The person shall not stockpile solids on land having a slope of more than three percent unless methods, structures, or practices are implemented to contain the stockpiled solids, including but not limited to using hay bales, silt fences, temporary earthen berms, or other effective measures, and to prevent or diminish precipitation-induced runoff from the stockpiled solids.

2. The person must remove the stockpiled solids and apply them in accordance with the provisions of this chapter, including but not limited to section 459A.410, within six months after the solids are stockpiled.

2006 Acts, ch 1088, §5, 6
Section takes effect April 26, 2006, and applies retroactively to February 13, 2006; 2006 Acts, ch 1088, §6

459A.404 through 459A.409 Reserved.

459A.410 Effluent application requirements.

Open feedlot effluent shall be applied in a manner which does not cause surface water or groundwater pollution. Application in accordance with the provisions of state law, including this chapter, rules adopted pursuant to the provisions of state law, including this chapter, and guidelines adopted pursuant to this chapter, shall be deemed as compliance with this section.

2005 Acts, ch 136, §16
Referred to in §459A.105, 459A.403

459A.411 Discontinuance of operations.

The owner of an open feedlot operation who discontinues the use of the operation shall remove all open feedlot effluent from related open feedlot operation structures used to store open feedlot effluent, as soon as practical but not later than six months following the date the open feedlot operation is discontinued.

2005 Acts, ch 136, §17

SUBCHAPTER V

ENFORCEMENT

459A.501 General.

The department and the attorney general shall enforce the provisions of this chapter in the same manner as provided in chapter 455B, division I and section 455B.175, unless otherwise provided in this chapter.

2005 Acts, ch 136, §18; 2007 Acts, ch 82, §5

459A.502 Violations — civil penalty.

A person who violates this chapter shall be subject to a civil penalty which shall be established, assessed, and collected in the same manner as provided in section 455B.191. Any civil penalty collected and interest on a civil penalty shall be deposited in the animal agriculture compliance fund created in section 459.401. A person shall not be subject to a penalty under this section and a penalty under section 459.603 for the same violation.

2005 Acts, ch 136, §19
Referred to in §459.401