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SHORT TITLE: Agriculture; requiring permits; mandating guidelines;  
effective date.

STATE OF OKLAHOMA

2nd Session of the 46th Legislature (1998)

SENATE BILL NO. 991

By: Shurden

AS INTRODUCED

An Act relating to agriculture; amending Section 10, Chapter 331, O.S.L. 1997 (2 O.S. Supp. 1997, Section 9-205.4), which relates to animal retention structures; requiring permits for retention structures for swine; mandating guidelines for construction of retention structures; and providing an effective date.

BE IT ENACTED BY THE PEOPLE OF THE STATE OF OKLAHOMA:

SECTION 1. AMENDATORY Section 10, Chapter 331, O.S.L. 1997 (2 O.S. Supp. 1997, Section 9-205.4), is amended to read as follows:

Section 9-205.4 A. Any hydrologic connection between wastewater and groundwater outside that authorized by the provisions of the Oklahoma Concentrated Animal Feeding Operations Act and rules promulgated pursuant thereto shall constitute a discharge to waters of the state.

B. Except as otherwise provided by Section ~~18~~ 9-210.2 of this act Title, to prevent hydrologic connections between a retention structure and waters of the state, all animal feeding operations in this state operating a liquid animal waste management system whether or not such waste facilities are licensed pursuant to the Oklahoma Concentrated Animal Feeding Operations Act shall:

1. Utilize, as required by the Oklahoma Concentrated Animal Feeding Operations Act and rules promulgated pursuant thereto, a natural or geomembrane liner or other liner constructed of synthetic materials in any retention structure containing liquid animal waste; or

2. Documentation that there is no hydrologic connection between the waters of the state and the retention structure.

C. Except as otherwise provided by Section ~~18~~ 9-210.2 of this ~~act~~ title, all retention structures shall maintain a minimum separation of four (4) feet between the bottom of the retention structure and the maximum groundwater elevation which is measured from the bottom of the retention structure and the highest point of the seasonal groundwater table.

D. 1. An animal feeding operation can document lack of hydrologic connection by either:

- a. documenting that there will be no leakage from the retention structure outside that authorized pursuant to the provisions of the Oklahoma Concentrated Animal Feeding Operations Act or rules promulgated pursuant thereto, or
- b. documenting that any leakage from the retention structure will not migrate to waters of the state.

2. This documentation shall be certified by a professional engineer or qualified groundwater scientist and shall include information on the hydraulic conductivity and thickness of the natural materials underlying and forming the walls of the containment structure up to the maximum operating level.

E. The Department of Agriculture shall establish standards for retention structures pursuant to the provisions of this section.

F. If the Department determines that the documentation of barriers to hydrologic connections between the retention structure and waters of the state is not sufficient to establish by clear and

convincing evidence that the retention structure does not constitute a threat to contamination of the waters of the state, the Department may require the applicant or licensee to install a natural or geomembrane liner or other liner constructed of synthetic material.

G. If the Department determines that evidence shows a likelihood exists for the contamination of public or private drinking water, the Department shall require the licensee to install a leak detection system or monitoring wells.

H. Site-specific conditions shall be considered in the design and construction of liners. Liners for retention structures shall be designed and constructed in accordance with the provisions of this section and generally accepted engineering practices pursuant to Technical Note 716 of the Natural Resources Conservation Service or by the federal Environmental Protection Agency.

I. 1. When a liner is installed to prevent hydrologic connection, the licensee must maintain the liner to inhibit infiltration of wastewaters. Documentation of liner maintenance shall be maintained with the Pollution Prevention Plan.

2. A professional engineer, or qualified groundwater scientist shall conduct a site evaluation every five (5) years on the retention structure to ensure liner integrity. If the owner or operator suspects that a retention structure is leaking, the owner or operator shall report such suspected leakage to the Department.

J. All substances entering the retention structures shall be composed entirely of wastewaters from the proper operation and maintenance of an animal feeding operation and the runoff from the animal feeding operation area. The disposal of any materials, other than substances associated with proper operation and maintenance of the facility into the containment structures, including but not limited to human waste, is prohibited.

K. Documentation, sampling data, and any other records required by this section shall be maintained on site for three (3) years.

Samples collected during the first year of the retention structure shall be considered the baseline data and must be retained on-site for the life of the retention structure.

L. In addition to the provisions of this section, prior to obtaining a permit, all retention structures for swine shall meet the following requirements:

1. No retention structures shall discharge pollutions into the waters of the state;

2. All retention structures shall be constructed with a surface area large enough to treat the animal wastewater to minimize odors during treatment and subsequent land application;

3. All retention structures shall be either aerobic or anaerobic:

a. if aerobic, the retention structure design shall be based on organic loading not to exceed forty-five (45) pounds BOD per acre per day,

b. if anaerobic, the loading rate shall be five and one-half (5.5) pounds, per cubic feet per day. Additional reduction of loading shall be required based on the location of the operation and the need for odor control pursuant to the rules of the State Board of Agriculture;

4. All retention structures shall utilize a natural or geomembrane liner or other liner constructed of synthetic materials;

5. All retention structures not in existence at the time of the effective date of this legislation shall maintain a minimum separation of fifteen (15) feet between the bottom of the retention structure and the maximum groundwater elevation which is measured from the bottom of the retention structure and the highest point of the seasonal groundwater table. Any retention structure impacting the ground water shall take such remedial measures as necessary to eliminate the impact;

6. All retention structures shall install a leak detection system or monitoring wells, with the sites of said wells, the parameters to be analyzed and frequency of testing to be specified in the permit;

7. Site-specific conditions shall be considered in the design and construction of liners. All retention structures taking into consideration site-specific conditions, shall utilize liners which are designed and constructed as follows:

- a. the liner for a retention structures may be synthetic or constructed of soil,
- b. a liner constructed of soil shall have the hydraulic conductivity of not greater than  $(1 \times 10^{-7})$  cm. per sec. Self sealing of manure shall not be considered in determining the hydraulic conductivity of the soil seal. The thickness of the liner shall be sufficient to prevent wastewater seepage in excess of five hundred (500) gallons per acre per day,
- c. a synthetic liner that is constructed and installed in accordance with the rules of the Board;

8. All retention structures shall not receive stormwater runoff from said operation;

9. Retention structures shall not be directly connected to a fresh water well. Any retention structures also utilizing ground water shall be constructed with an air gap; and

10. Any swine retention structures in existence at the time of the enactment of this legislation shall have not more than three (3) years from the effective date of this act to bring said structures into compliance with the provisions of this subsection.

SECTION 2. This act shall become effective November 1, 1998.

