

**UNION COUNTY**  
**Zoning Regulations for Confined**  
**Animal Feeding Operations**

November, 1996

Union County Land Use Administrator  
PO Box 577, 209 E Main  
Elk Point, SD 57025

**SECTION 100 – “AG” AGRICULTURAL DISTRICTS**

**Purpose**

This district is established to maintain and promote farming and related activities. Residential development will be discouraged to minimize conflicts with farming activities and reduce the demand for expanded public services and facilities.

**Permitted Uses**

1. Agricultural activities and farm related building, including Type E Concentrated Feeding Operations.
2. Farm dwelling.
3. Non-farm dwelling not within one-half mile of a Concentrated Feeding Operation unless waiver registered on deed.

**Special Exceptions**

1. Class A, Class B, Class C, and Class D Concentrated Feeding Operations. See *Concentrated Feeding Operations, Section 200.*

**SECTION 200 – CONCENTRATED FEEDING OPERATION REGULATIONS**

**Intent**

An adequate supply of healthy livestock, poultry and other animals is essential to the well being of county citizens and the State of South Dakota. However, livestock, poultry, and other animals produce manure which may, where improperly stored, transported, or disposed, negatively affect the County's environment. Animal manure must be controlled where it may add to air, surface water, ground water, or land pollution. The following regulations have been adopted to provide protection against pollution caused by manure from domesticated animals. All new and proposed expansions of Concentrated Feeding Operations shall comply with the regulations as outlined herein.

**Definitions**

**Animal Manure:** Poultry, livestock, or other animal excreta or mixture or excreta with feed, bedding, or other material.

**Animal Unit:** See Page 3.

**Applicant:** An individual, a corporation, a group of individuals, partnership, joint venture, owners, or any other business entity having charge or control of one or more concentrated animal feeding operations.

**Change in Operation:** "Change in operation" means a cumulative increase of more than 300 animal units, after date, which are confined at an un-permitted concentrated feeding operation.

**Farm Dwelling:** Any dwelling farmer owned or occupied by the farm owners, operators, tenants, or seasonal or year-around hired workers.

**Non-farm Dwelling:** Any occupied dwelling which is not a farm dwelling.

**Permit:** A permit required by these regulations unless stated otherwise.

**Potential Pollution Hazard:** A Concentrated Animal Feeding Operation of 10 to 300 Animal Units may be classified as a Class D Operation by the Union County Land Use Administrator when a Potential Pollution Hazard exists. Factors to be considered by the Land Use Administrator in determining a Potential Pollution Hazard include the following:

1. The Concentrated Animal Feeding Operation does not meet the minimum setback and separation distances of these regulations.
2. A Potential Water Pollution Hazard exists due to sitting over a shallow aquifer or drainage which contributes to the waters of the state.

**Process Generated Wastewater:** Water directly or indirectly used in the operation of an animal feeding operation. The term includes spillage or overflow from watering systems; water and manure collected while washing, cleaning or flushing pens, barns, manure pits or other areas; water and manure collected during direct contact swimming, washing or spray cooling of animals; and water used in dust control.

**Process Wastewater:** "Process wastewater" means any process generated wastewater and any precipitation (rain or snow) that comes into contact with the animals, manure, litter or bedding, feed, or other portions of the animal feeding operation. The term includes runoff from an open lot.

**Shall** means that the condition is an enforceable requirement of this permit.

**Shallow Aquifer:** An aquifer vulnerable to contamination because the permeable material making up the aquifer (a) extends to the land surface so percolation water can easily transport contaminants from land surface to the aquifer, or (b) extends to near land surface and lacks a sufficiently thick layer of impermeable material on the land or near the land surface to limit percolation water from transporting contaminants from the land surface to the aquifer.

**Shallow Well:** A well which is located in a shallow aquifer.

**Union County**

**Shallow Well:** A well which is located in a shallow aquifer.

**Should** means that the condition is a recommendation. If violations of the permit occur, the County will evaluate whether the producer implemented the recommendations contained in this permit that may have helped the producer to avoid the violation.

**Significant Contributor of Pollution:** To determine if a feedlot meets this definition, the following factors are considered:

1. Size of feeding operation and amount of manure reaching waters of the state;
2. Location of the feeding operation in relation to waters of the state;
3. Means of conveyance of manure and process wastewater into waters of the state; and
4. The slope, vegetation, rainfall and other factors affecting the likelihood or frequency of discharge of animal wastes and process wastewater into waters of the state.

**Waters of the State** means all waters within the jurisdiction of this state, including all streams, rivers, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state.

**Animal Units:** Animal species and number of a species required to equal 300, 1000, and 2000 animal units. Note that these figures relate to inventory rather than annual production. Other animal species equivalents which are not listed will be based on species' waste production.

**EQUIVALENT NUMBER OF A SPECIES TO EQUAL:**

<b><u>ANIMAL SPECIES</u></b>	<b><u>300 AU</u></b>	<b><u>1000 AU</u></b>	<b><u>2000 AU</u></b>	<b><u>ANIMAL UNIT EQUIVALENT SPECIES / AU</u></b>
Feeder or Slaughter Cattle	200 hd	700 hd	1400 hd	1.4
Mature Dairy Cattle	150 hd	500 hd	1000 hd	2.0
Finisher Swine (over 55 lbs)	540 hd	1800 hd	3600 hd	0.56
Nursery Swine (less than 55 lbs)	750 hd	2500 hd	5000 hd	0.4
Farrow-to-finish (sows)	50 hd	170 hd	330 hd	6.0
Swine Production Unit (sows breeding, gestating, farrowing)	375 hd	1250 hd	2500 hd	0.8
Horses	150 hd	500 hd	1000 hd	2.0
Sheep	3000 hd	10,000 hd	20,000 hd	0.1

**EQUIVALENT NUMBER OF A SPECIES TO EQUAL:** *(continued)*

<b><u>ANIMAL SPECIES</u></b>	<b><u>300 AU</u></b>	<b><u>1000 AU</u></b>	<b><u>2000 AU</u></b>	<b><u>ANIMAL UNIT EQUIVALENT SPECIES / AU</u></b>
Turkeys	9000 hd	30,000 hd	60,000 hd	0.033
Laying Hens and Broilers (liquid handling system in confinement facility)	15,000 hd	50,000 hd	100,000 hd	0.02
Ducks	1500 hd	5000 hd	10,000 hd	0.2

**Concentrated Feeding Operation Permit Requirements**

Owners of Class A, Class B, Class C, and Class D Concentrated Feeding Operations are required to complete a permit application whenever any of the following occur:

1. A new Concentrated Feeding Operation is proposed where one does not exist.
2. An expansion is proposed beyond what a current permit allows.
3. A cumulative expansion by 300 animal units of an existing feedlot that does not have a permit.
4. A change in ownership.
5. An existing feedlot is to be restocked after being idle for five (5) or more years.
6. A signed complaint has been received by the Union County Land Use Administrator or South Dakota Department of Environment and Natural Resources and after inspection reveals that a Concentrated Feeding Operation is in violation of County or State regulations.

**Concentrated Animal Feeding Operation Control Requirements**

**1. No Significant Contribution of Pollution**

In general, no Concentrated Animal Feeding Operation shall be constructed, located, or operated so as to create a significant contribution to pollution.

**2. State General Permit**

Class A, B, C, and D Concentrated Animal Feeding Operations shall obtain a State General Permit pertaining to the animal species of the Concentrated Animal Feeding Operation. A County permit may be approved conditioned on receiving a State permit.

### **3. Nutrient Management Plan**

The applicant shall develop, maintain, and follow a nutrient management plan to ensure safe disposal of manure and protection of surface and ground water. The South Dakota Department of Environment and Natural Resources must approve the plan prior to land application of any wastes. Due to crop rotation, site changes, and other operational changes, the producer should update the plan annually to reflect the current operation and crops grown on the application sites. The applicant shall collect, store, and dispose of liquid and solid manure according to recognized practices of good agricultural management. The economic benefits derived from agricultural operations carried out at the land disposal site are secondary to the proper and safe disposal of the manure.

A generic nutrient management plan that the applicant may use in developing a nutrient management plan is available from the South Dakota Department of Environment and Natural Resources. The generic nutrient management plan is based on application of nitrogen.

The applicant may use other plans, provided the alternate plan contains all the information necessary to determine compliance with conditions of the general permit. Nitrogen, in addition to that allowed in the nutrient management plan, may be applied up to the amounts as indicated by soil or crop nitrogen test results that are necessary to obtain the realistic crop yield.

The South Dakota Department of Environment and Natural Resources recommends and encourages producers to develop nutrient management plans for other nutrients such as phosphorus and potassium. Over application of these nutrients may lead to water quality problems in area lakes and streams and result in potential damage to the producer's land and crop.

The applicant must maintain records to show compliance with the plan.

The plan must comply with County Manure Application Setbacks.

Land spreading agreements shall be provided if applicant does have minimum acreage to apply animal manure. Animal manure shall be applied within five miles of the Concentrated Animal Feeding Operation.

### **4. Manure Management and Operation Plan**

Classes A, B, C, and D Concentrated Animal Feeding Operations must submit a Manure Management and Operation Plan.

- A. Plan must include:
1. The location and specifics of proposed animal manure facilities
  2. The operation procedures and maintenance of manure facilities.
  3. Plans and specifications must be prepared or approved by a registered professional engineer, or a Natural Resource Conservation Service (NRCS) engineer. Waste treatment facilities will require inspection by an engineer and as-built plans to be submitted to the Union County Land Use Administrator.
  4. Animal manure shall not be stored longer than two years.
  5. Manure containment structures shall provide for a minimum design and volume of one year's production.
  6. Producers shall keep records on manure applications on individual fields which document acceptable manure and nutrient management practices have been followed. These records shall include soil test results for surface two feet of soil, actual and projected crop yields, nutrient analysis of manure, and information about date, rate and method of manure applications for individual fields.
- B. As a condition of the permit, the Union County Planning and Zoning Commission may require the producer to participate in environmental training programs and become a certified livestock manager.

**5. Management Plan for Fly and Odor Control**

Classes A, B, C, and D Concentrated Animal Feeding Operations shall dispose of dead animals, manure and wastewater in such a manner as to control odors or flies. A management plan is required for submission of a permit. The Union County Planning and Zoning Commission will review the need for control measures on a site specific basis, taking into consideration prevailing wind direction and topography. The following procedures to control flies and odors shall be in the management control plan.

- A. Operational plans for manure collection, storage treatment and use must be kept updated and implemented.
- B. Methods to be utilized to dispose of dead animals shall be included in the management plan.

- C. Plant trees and shrubs to reduce wind movement of odors away from buildings, manure storage ponds and/or lagoons. (Tree belt regulations attached).
- D. Provide adequate slope and drainage to remove surface water from pens and keep pen area dry so odor production is minimized.
- E. Store solid manure in containment areas having good drainage to minimize odor production.
- F. Remove manure from open pens as frequently as possible to minimize odor production.
- G. Consider use of covers on open storage systems for liquid manure systems to reduce odor production.
- H. Avoid spreading manure on weekends, holidays, and evenings during warm seasons when neighbors may be involved in outdoor recreation activities.
- I. Avoid spreading during calm and humid days, since these conditions restrict the dispersion and dilution of odors.

**6. Required Setbacks and Separation Distance for New Concentrated Feeding Operation and Those Expanding by 300 or More Animal Units After (date).**

**MINIMUM**

	<b><u>Class A</u></b>	<b><u>Class B</u></b>	<b><u>Class C</u></b>	<b><u>Class D &amp; E</u></b>
Dwelling, Churches, Schools, Business and Public Use Areas	¾ mile plus 220 feet for each additional 500 AU over 1,000 AU	½ mile plus 220 feet for each additional 500 AU over 1,000 AU	½ mile	¼ mile
Buildings within Municipal Areas and Populated Areas	One mile plus 440 feet for each additional 500 AU over 1,000 AU	One mile	One mile	½ mile
Public Water Supplies	½ mile	½ mile	1,000 feet	1,000 feet
Private Shallow Wells	250 feet	250 feet	250 feet	250 feet
Lakes, Rivers and Streams Classified as Fisheries or Wetlands	½ mile	½ mile	1,000 feet	1,000 feet
Federal, State and County Road ROW	1,000 feet	1,000 feet	300 feet	300 feet
Township Road Row	300 feet	200 feet	200 feet	200 feet
Designated 100 Year Floodplain	Prohibited	Prohibited	Prohibited	Prohibited

**7. Exemptions From Separation Distance**

- A. If a Concentrated Feeding Operation is closer than the separation distances provided in these regulations, the applicant can request a written waiver from the separation distance. The residence, business, church, school, municipality, or public use area may waive the distance requirement. The waiver is recorded with the Register of Deeds in order that any future owners can be informed.
- B. Concentrated Animal Feeding Operation expansion of 300 animal units or more can apply to the Union County Planning and Zoning Commission for a variance to the required setback and separation distance regulations.

**8. Manure Application Setbacks**

The following manure application setbacks apply to all classes of Concentrated Animal Feeding Operations. Surface spreading of manure through any irrigation type system will not be allowed.

**COUNTY MANURE APPLICATION SETBACKS**

<b><u>CATEGORY</u></b>	<b><u>SURFACE APPLIED</u></b>	<b><u>INCORPORATED OR INJECTED</u></b>
Lakes, River, and Streams Classified as Fisheries or Wetlands	300 feet	100 feet (lake) 50 feet (river & stream)
Streams and Lakes Classified as Drinking Water Supplies	1,000 feet	300 feet
Public Roads	100 feet from Row	50 feet from ROW
Area of 10 or More Residences	300 feet	300 feet
Public Wells	1,000 feet	1,000 feet
Private Shallow Wells	250 feet	250 feet
A Residence Other Than The Operator	300 feet	300 feet
Natural or Manmade Drainage	200 feet	50 feet

**9. Standards for Special Exemptions**

- A. The Union County Planning and Zoning Commission may request information relating to a Concentrated Animal Feeding Operation not contained in these regulations.
- B. The Union County Planning and Zoning Commission may impose, in addition to the standards and requirements set forth in these regulations, additional

regulations which the Planning Commission considers necessary to protect the public health, environment, safety, and welfare.

- C. Special exceptions shall be in effect only as long as sufficient land specified for spreading purposes is available for such purposes and other provisions of the permit are being adhered to.
- D. When considering an application, the Planning and Zoning Commission will take into consideration current and past violations relating to Concentrated Animal Feeding Operations that the applicant has an interest in.

**10. Information Required for Class A, B, C, or D Concentrated Feeding Operation Permit.**

- A. Owner's name, address, and telephone number.
- B. Legal descriptions of site.
- C. Number and type of animals.
- D. Nutrient management and operation plan.
- E. Manure management and operation plan.
- F. Management plan for fly and odor control.
- G. Information on ability to meet designated setback requirements.
- H. General permit from South Dakota Department of Environment and Natural Resources if available for animal species.
- I. Review of Plans and Specifications and Nutrient Management Plan by the South Dakota Department of Environment and Natural Resources.
- J. Information on soils, shallow aquifers, designated wellhead protection areas, and 100-year floodplain designation.
- K. Any other information as contained in the application and requested by the Union County Land Use Administrator.