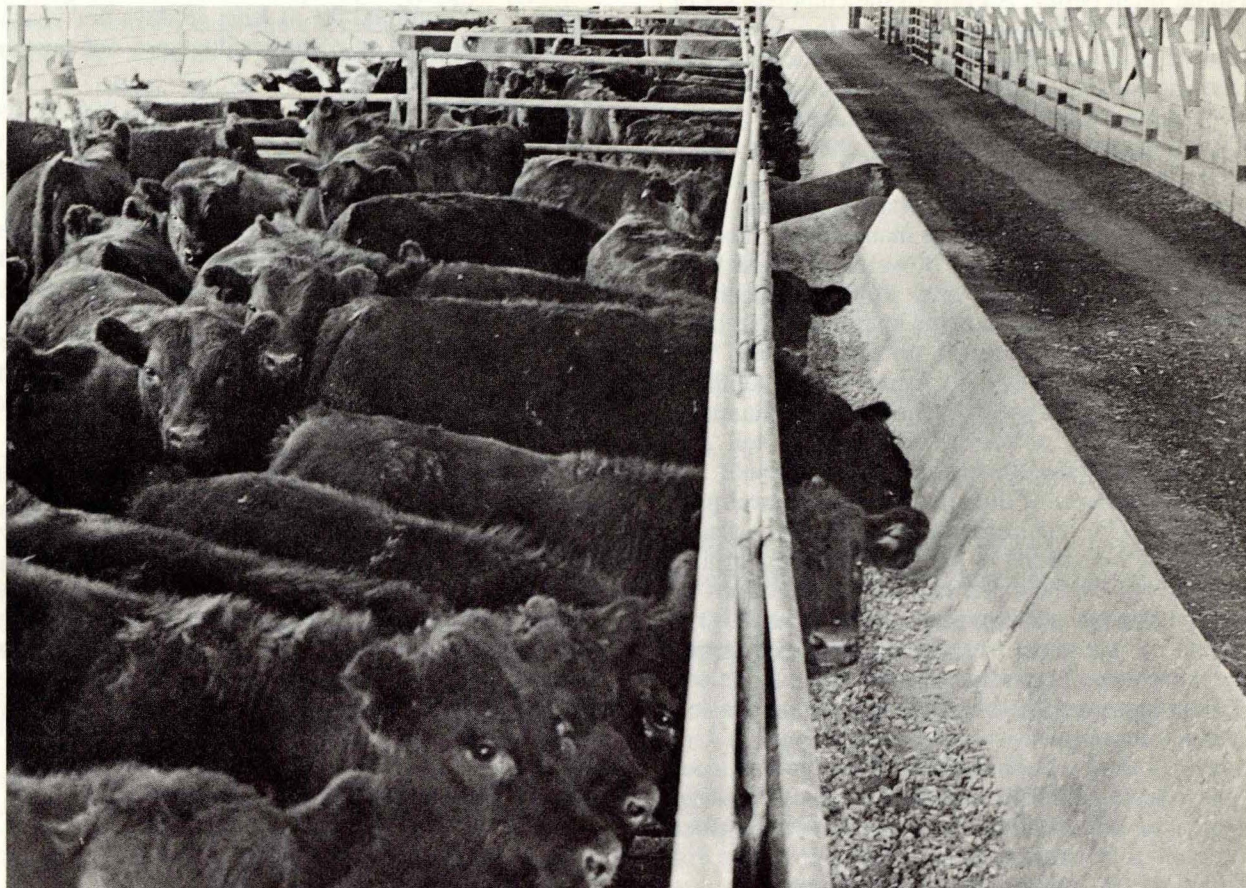


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Animal Waste Regulations for Iowa

**A condensation and clarification
of rules affecting animal feeding
operations**



Prepared jointly by
Iowa Department of Environmental Quality
Cooperative Extension Service,
Iowa State University

March 1977
IDEQ

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Des Moines, Iowa

ANIMAL WASTE REGULATIONS FOR IOWA

Iowa has had regulations controlling animal waste since 1969. Regulations have changed since then to meet changing environmental requirements and animal production technology. The rules covered in this publication have been in effect since Oct. 25, 1976. These rules represent a comprehensive program to control animal waste discharges into the waters of Iowa. Water pollution control regulations have been developed to protect the quality of our surface water as well as underground water supplies.

This booklet condenses and clarifies the existing rules affecting animal feeding operations to help you understand them better. A copy of the complete set of rules, as found in Chapter 400-20 of the Iowa Administrative Code, can be obtained at your local County Extension Service office, Soil Conservation Service office, or Iowa Department of Environmental Quality (IDEQ), Henry A. Wallace Building, 900 East Grand Ave., Des Moines, Iowa 50319.

Livestock operations have become larger and more concentrated in recent years. In many cases, this has increased the potential hazard of water pollution from poor waste management practices. Rules have been developed to require animal feeding operations that have a **potential** to pollute water to obtain a permit. The potential for animal waste to cause water pollution varies with system capacity, type of waste handling system, distance to a stream, topography, soil and climatic conditions, and management.

Basic components of the animal waste control program include (1) requirements for certain existing animal feeding operations to obtain operation permits, (2) requirements for new and expanding operations to obtain construction and operation permits, and (3) requirements of minimum waste control for **all** animal feeding operations. The rules also outline the practices that IDEQ recommends a producer follow in disposing of animal wastes on land.

Every animal feeding operation must meet minimum waste control standards. Many feeding operations are not required to obtain either construction or operation permits, even though they are required to meet minimum waste control standards.

Until IDEQ takes over the federal EPA feedlot permit program, some Iowa feeding operations will be required to obtain both state and federal permits. For more information on the federal program, check with Extension Service or Soil Conservation Service offices.

I. Who Must Apply for a Permit?

The rules require certain animal feeding operations

to apply for operation and construction permits. Permit application requirements vary with the capacity of the operation and the type of waste management facilities used. The **capacity** of an operation is considered to be the maximum number of animals that the producer intends to have in the facility at one time. Different requirements are established for open feedlots and confinement operations.

Q. How are open feedlots and confinement feeding operations defined?

A. An **open feedlot** is defined as one or more *unroofed or partially roofed* animal enclosures in which animals are confined for at least 45 days per year and where vegetation or plant residues are not sustained during animal occupancy.

A **confinement feeding operation** is one or more *totally roofed* animal enclosures in which animals are confined for 45 days or more per year and which uses a liquid or semiliquid waste management system.

Note that a feeding operation with unroofed or partially roofed lot or pen area is classified as an open feedlot. This is true even if the operation uses a liquid manure system.

Two or more animal enclosures under common ownership or management are considered to be a single operation if they are adjacent or if they use a common system or area for waste disposal.

Q. What are the rules requiring open feedlots to apply for a state permit?

A. If an open feedlot meets either of the following criteria, the owner or operator must apply for a permit.

1. **Size Criteria.** Any open feedlot operation with capacity exceeding 1,000 animal units must apply for a state permit. Use table 1 to determine the equivalent animal units for different species or to calculate total animal units when more than one species are contained in the feedlot.

Table 1. Animal capacity of feeding operation.

Species	Number of animals to equal 1,000 animal units	Multiplier
Cattle, beef	1,000	1.0
Cattle, dairy	700	1.4
Swine, butcher and breeding (over 55 lbs.)	2,500	0.4
Sheep or lambs	10,000	0.1
Horses	500	2.0
Turkeys	55,000	—

Prepared by staff of the Iowa Department of Environmental Quality and Cooperative Extension Service of Iowa State University.

Example: An open feedlot contains 700 beef cattle, 50 dairy cows, and 500 butcher hogs. The animal unit capacity of this feedlot is:

Number	x multiplier	= animal units
700 beef cattle	x 1.0	= 700
50 dairy cows	x 1.4	= 70
500 butcher hogs	x 0.4	= 200
Total animal units		970

Conclusion: Since the total is less than 1,000 animal units, a permit application is not required by size criteria.

2. **Distance To Stream Criteria.** Any open feedlot operation which exceeds the capacity listed in table 2 must apply for a permit if: it is less than a minimum distance to a stream, feedlot runoff drains into a stream with a drainage area larger than 3,200 acres, and the flow path of feedlot drainage (measured from the lot boundary to the stream) is less than the distance per animal given in the righthand column of table 2. Assistance can be obtained through Soil Conservation Service offices in determining drainage area of streams, drainage distances, and other pertinent topographic information.

Table 2. Distance to stream criteria.

Species	Minimum animal capacity	Distance per animal to stream (ft/animal)
Cattle, beef	100	2
Cattle, dairy	70	3
Swine, butcher and breeding (over 55 lbs.)	250	0.5
Sheep	1,000	0.2
Turkeys	5,500	0.05
Chickens, broilers or layers	9,000	—

Example: A 450-head beef cattle feedlot drains into a waterway. The waterway empties into a stream 300 feet below the point where feedlot drainage enters the waterway (distance A to B in fig. 1). At the point where the waterway enters the stream (Point B), the stream drains a total of 6,500 acres.

To be required to apply for a permit, a feedlot must meet all of the following conditions:

1. Have an animal capacity in excess of the minimum animal capacity listed in table 2.
2. Drain into a receiving watercourse of more than 3,200 acres at the point where feedlot drainage enters the watercourse.
3. Be less than the distance per head specified in the righthand column of table 2 to the receiving watercourse.

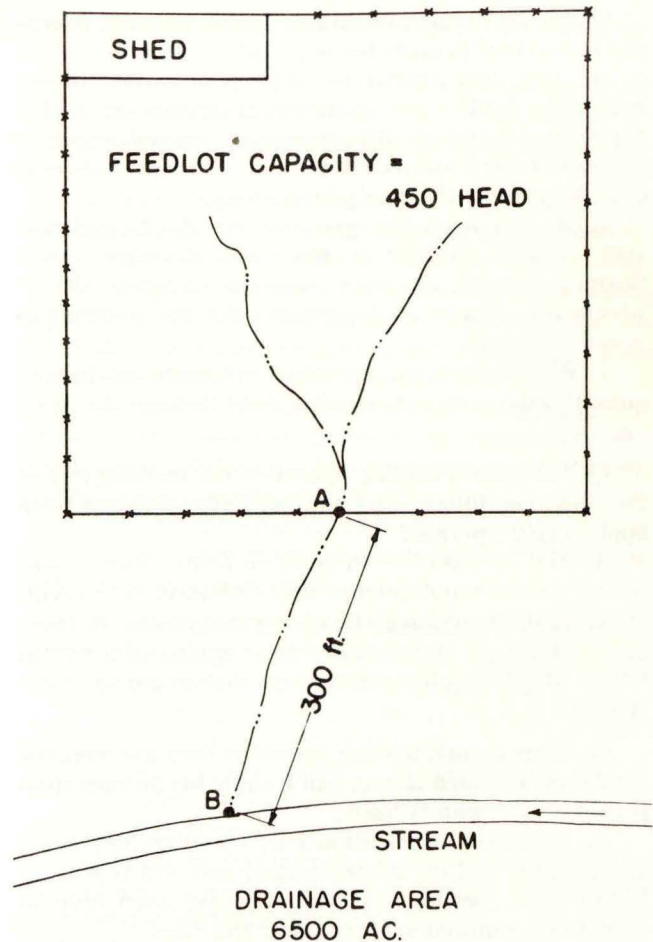


Fig. 1. Example of open feedlot near a stream.

Conclusion: Since the example feedlot meets all three conditions, a permit application is required.

Q. What rules require confinement feeding operations to apply for a state permit?

A. Two major subclasses of confinement operations exist—those using **earthen waste storage** structures (such as lagoons and earthen storage basins) and those using **formed waste storage** tanks (such as concrete, steel, or wood tanks). If confinement feeding operations exceed any of the animal capacity numbers in table 3, permit application is required.

Table 3. Confinement size criteria.

Species	Permit is required if animal capacity exceeds:	
	Earthen waste storage	Formed waste storage
Cattle, beef	200	1,000
Cattle, dairy	140	700
Swine, butcher and breeding (over 55 lbs.)	500	2,500
Turkeys	11,000	55,000
Chickens, broilers or layers	18,000	90,000
Sheep	—	10,000

Q. Are there other conditions under which an operation is required to apply for permits?

A. Yes, any animal feeding operation, including both open feedlot and confinement operations, with a capacity exceeding the minimum animal capacity values of table 2 and meeting either of the two following conditions must also apply for permits:

1. Wastes from the operation are discharged into state waters through a manmade drainage ditch, flushing system, or other manmade drainage device which was constructed primarily for the purpose of waste discharge, or
2. Wastes from the operation are being discharged directly into a stream which passes through the open lot.

Q. If I have a feeding operation not meeting any of the above conditions, am I automatically exempted from applying for a permit?

A. Not necessarily. In addition to the above mandatory permit requirements, any operation not providing at least the minimum level of waste control or causing pollution of state waters must apply for a permit within 90 days after receipt of written notice from IDEQ.

Q. If my animal feeding operation does not meet the conditions outlined above, can I apply for an operation permit on a voluntary basis?

A. Voluntary application may be submitted. Such applications will be acknowledged and will remain in IDEQ files. However, permits will be issued only to operations required to apply under the rules.

Additional information on construction and operation permits is given in Section IV of this booklet, "Permits."

II. Minimum Levels of Waste Control

Even if your feeding operation is not required to apply for state permits, minimum levels of waste control must be provided. IDEQ retains the right to inspect feeding operations at its convenience or when a complaint is received regarding alleged pollution. Minimum waste control requirements vary with the degree of pollution potential.

Q. What is the minimum level of waste control for open feedlot operations?

A. All open feedlots must remove settleable waste solids before discharging wastes from the feedlot property or into a watercourse.

Settleable solids removal control must be equivalent to reducing the liquid waste flow velocity to less than 1/2 foot per second for at least 5 minutes prior to waste discharge from a feedlot. Construction of settleable solids removal facilities is not required if existing feedlot site conditions adequately remove such solids.

Solids may be settled on another person's property if a written agreement is made between the parties.

Q. What about confinement feeding operations?

A. All confinement feeding operations must retain all wastes produced in the confinement facilities and must

dispose of the waste by land disposal. Adequate waste storage capacity must be provided to store all wastes between periods of disposal. No discharge of wastes into state waters is allowed from confinement feeding operations.

Q. What minimum levels of waste control are required for feedlots required to apply for permits?

A. Open feedlot operations which are required to apply for permits under the rules must control all wastewater resulting from a 25-year, 24-hour frequency rainfall event. In Iowa, this ranges from 4.8 to 5.7 inches of rainfall in 24 hours. As an alternative to providing this required level of waste control, an operation can eliminate those conditions requiring it to apply for a permit, if eliminating those conditions will also provide an adequate level of waste control. For example, if a feedlot is near a stream, it may be possible to build a diversion, terrace, or channel to artificially lengthen the distance between the feedlot and the stream. However, plans must be submitted to IDEQ and a construction permit issued before such construction is initiated.

Q. Can runoff from a feedlot be discharged directly into a lake?

A. No. Direct discharge into publicly owned lakes or impoundments or into sinkholes is prohibited.

Q. What about waste disposal?

A. All animal feeding operations must dispose of wastes without causing surface or groundwater pollution. The next section covers land disposal of wastes.

III. Land Disposal Guidelines

IDEQ has included land disposal recommendations in the current regulations. Surface and groundwater protection can be accomplished by following these guidelines in the land disposal of wastes.

Q. Why are land disposal guidelines needed?

A. Improper or excessive applications of animal waste on land can cause surface or groundwater pollution. Also, excessive applications may cause crop production problems because of excessive levels of nutrients or trace elements.

Q. Must an animal feeding operation follow these guidelines in land disposal of its waste?

A. No. An animal feeding operation is required, however, to dispose of its wastes on land in a manner that will not cause surface or groundwater pollution. Land disposal practices that differ from these guidelines are acceptable if they do not cause surface or groundwater pollution.

Operations that dispose of wastes in accordance with the land disposal guidelines are considered to have no water pollution hazard.

Q. How does IDEQ use the land disposal guidelines in its review of permit applications?

A. IDEQ evaluates the ability of animal feeding operations to comply with the land disposal guidelines. In making this evaluation, IDEQ considers factors such

as land area availability, cropping systems, topography, and waste storage capacity.

IDEQ may approve land disposal practices which differ from the guidelines if surface or groundwater pollution will not result from these practices.

Q. What items are covered by the land disposal guidelines?

A. The guidelines cover the following:

1. Recommended waste nutrient application rates.
2. Disposal on frozen or snow-covered ground.
3. Disposal on land subject to flooding.
4. Disposal on land near a watercourse or body of water.
5. Waste incorporation into soil
6. Odor control from land disposal operations.

Q. On what basis were recommended waste application rates developed?

A. Waste application rate recommendations are made for nitrogen and phosphorus. Maximum nitrogen application rates are established because excessive applications may result in surface runoff or nitrate leaching into groundwater. Excessive phosphorus applications may lead to crop production problems.

Although excessive applications of other animal waste constituents (salts, other trace elements) are of concern, these generally will not be applied at excessive rates if the recommended nitrogen and phosphorus application rates are followed.

Q. What are the recommended nitrogen application rates for animal wastes?

A. 1. The average nitrogen application rate over an extended period should not exceed 250 pounds **available nitrogen** per acre per year. This rate should be only for crops that use high rates of nitrogen.

2. The maximum nitrogen application in any one year should not exceed 400 pounds **total nitrogen** per acre.

3. Annual nitrogen applications in excess of 250 pounds **available nitrogen** per acre should not be made unless a specific crop management plan indicates that the proposed application rates will not result in surface or groundwater pollution.

Q. How can the nitrogen content of animal wastes be determined?

A. Nitrogen content can be determined by having a sample of the wastes analyzed in a laboratory. Printed information based on research results can also be used to estimate the nutrient content of waste.

Nitrogen losses that occur during storage and after application to land should be considered in determining the nitrogen content of applied wastes.

Q. The waste application rates refer to "total nitrogen" and "available nitrogen." What is meant by these terms?

A. "Total nitrogen" refers to the total amount of nitrogen contained in a waste material. "Available nitrogen" refers to that portion of the total nitrogen content which exists in a form usable by crops. Since the amount of available nitrogen in a waste depends on a number of factors, laboratory analysis is suggested. If laboratory analysis is not available, the following general guidelines can be used:

1. During the first crop season following waste application, the available nitrogen content is:

a. Seventy-five percent of the total nitrogen content of the applied waste if the waste is injected or incorporated into the soil immediately following application, or

b. Fifty percent of the total nitrogen content of the applied waste if the waste is surface-applied and allowed to dry before incorporation into the soil.

2. During the second crop season following waste application, the available nitrogen carryover from the waste applied during the first crop season is 12.5 percent of the original nitrogen content of that waste.

3. During the third crop season following waste application, the available nitrogen carryover from the waste applied during the first crop season is 7 percent of the original nitrogen content of the waste.

4. After more than three crop seasons, no more carryover of nitrogen from the waste applied during the first crop season is assumed.

Q. If waste applications are planned to provide in excess of 250 pounds available nitrogen per acre, what should be contained in a crop management plan?

A. A crop management plan for a proposed land disposal site should include the following:

1. Cropping system and harvesting schedule.
2. Amounts and frequency of nitrogen application.
3. Projected nitrogen removal by crops.
4. Other projected nitrogen losses—volatilization to atmosphere, surface runoff from field, leaching to groundwater, and other losses.

Yearly waste applications exceeding 250 pounds available nitrogen per acre should be made only if the crop management plan shows that surface or groundwater pollution will not result.

Q. What are the recommended phosphorus application rates?

A. Waste application is recommended as follows:

1. For soils where tests indicate adequate phosphorus levels (between 45 and 100 pounds per acre), phosphorus applications at rates equivalent to crop uptake are recommended.

2. For soils testing low in phosphorus (soil test levels below 45 pounds per acre), phosphorus application in excess of crop removal can be used to obtain maximum crop production.

Q. Can wastes be spread on frozen or snow-covered ground?

A. Spreading on frozen or snow-covered ground should be avoided, if possible. If such spreading is necessary, it should be limited to:

1. Land where slopes are 4 percent or less, or
2. Land with adequate erosion control or diversion practices. Adequate erosion control practices might include terraces, mulch tillage, cover crops, or contour farming.

Q. Can manure be spread on land subject to flooding?

A. Yes, but wastes spread on land subject to flooding (land which floods more than once every 10 years)

should be incorporated into the soil within 30 days after spreading. Wastes should not be spread on such areas during frozen or snow-covered conditions. Waste spread during usual peak flood periods (April, May, and June) should be injected or immediately incorporated into the soil.

Q. Can wastes be disposed of on land near a watercourse or body of water?

A. For disposal sites where runoff might enter any of the following, wastes should be injected or incorporated into the soil if spread closer than 200 feet to any of the following:

1. Stream.
2. Surface intake of tile line or other buried conduit.
3. Sinkhole.
4. Shoreline of a lake or pond.
5. Any well with an open surface inlet.

Wastes should only be spread on waterways for the purpose of establishing seedings.

Q. Is manure incorporation into the soil necessary for land disposal?

A. Immediate incorporation or soil injection of wastes is not required but is recommended on tilled land with slopes exceeding 10 percent and on land subject to flooding more frequently than once every 10 years.

Wastes should also be injected or incorporated into the soil when needed for odor control.

Q. What recommendations are made concerning odor control from land disposal operations?

A. Good judgment should be used in selecting location of disposal areas and in timing disposal operations with climatic conditions. Bright, cool, sunny days with gusty winds blowing away from neighbors are the best for land disposal.

Injecting or soil incorporation immediately after spreading helps control odors.

IV. Permits

This section is specifically written to help answer questions of those producers who need state permits as discussed in Section I.

IDEQ issues two types of permits: Construction permits and operation permits. A **construction permit** is issued to new or expanding operations after IDEQ has approved construction plans. An **operation permit** is issued to existing operations or new feeding operations. An operation permit authorizes the use of a facility and specifies waste management requirements to meet state approval.

Operation Permits

Q. How can I apply for a state operation permit?

A. Forms such as those at the back of this publication must be completed, signed by the person legally responsible for the feeding operation, and sent to IDEQ. Two application forms are used, one for open feedlots and one for confinement operations. Additional forms are available at County Extension Service and Soil Conservation Service offices.

Q. When must application be made for a state operation permit?

A. 1. Existing operations—without present permit: Application for a permit is required prior to April 1, 1977. Continued operation of the feeding facility is authorized once permit application has been made until IDEQ acts on the application. Some feeding operations may be able to alter their system so it will not fall under permit application requirements.

2. Existing operations—with present permit: No action is necessary unless a written request for information is received from IDEQ.

3. Expansion of existing facilities or proposed new construction: If the operation will meet state permit application requirements after construction, permit application must be made at least 90 days prior to the scheduled date of operation of the new facilities.

Q. How long does it take to receive an operation permit?

A. For proposed new or expanding operations, permits will normally be issued within 90 days after application. Sometimes complications arise which will require a longer time period. If this is the case, IDEQ will notify the producer of the delay. Applications from existing operations will be processed on a priority system as staff time is available.

Q. What does an operation permit contain?

A. The permit establishes waste control requirements the operation must meet. If an existing operation does not meet these requirements, the permit will establish a timetable to meet the requirements. The permit will contain operation, maintenance, and monitoring requirements as needed to prevent water pollution from waste storage and disposal operations.

Q. How long is an operation permit valid?

A. Normally, a permit is issued for 5 years. If special conditions exist, the permit may be issued for a shorter period.

Q. What should I do when my permit expires?

A. An application for renewal must be submitted at least 120 days before an operation permit expires. Written notification will be provided by IDEQ when existing permit holders are required to renew.

Q. What happens when title to a permitted livestock facility is transferred to another owner?

A. All terms and conditions of the existing permit are transferred to the new owner. The new owner must notify IDEQ within 30 days of the transaction.

Construction Permits

Q. If I am building a new feeding operation or expanding my existing operation, do I have to obtain a construction permit?

A. Any new or expanding operation which, when constructed, will meet operation permit requirements must obtain a construction permit before building. Operations that will not meet operation permit requirements are not required to obtain IDEQ approval. Application must be submitted at least 90 days in advance

of construction, installation, or modification of facilities.

Q. Are the forms used to apply for a construction permit different from those used for operating permits?

A. Yes. Construction permit application forms are available from county Soil Conservation Service offices. Construction permit application must be accompanied by engineering plans and data on the proposed waste storage and disposal system. Additional information regarding construction permit application requirements can be obtained from IDEQ, Soil Conservation Service personnel, or consulting engineers.

Q. Who can prepare plans for a proposed waste storage and disposal system?

A. Waste storage and disposal facility plans must be designed and submitted in conformance with Chapter 114 of the Iowa Code. Plans developed by registered professional engineers or by Soil Conservation Service personnel are considered to be in conformance with Chapter 114.

Q. How long does it take to get a construction permit?

A. IDEQ must act on construction permit applications within 60 days of receipt of a complete application unless the operator is notified in writing of a delay. If the operation is also required to have a federal permit, the process will probably take as long as 180 days.

Q. What plan review criteria does IDEQ use for construction permits?

A. Applicable criteria in federal guidelines and standards, Soil Conservation Service standards and specifications, Department of Commerce precipitation data, and the Iowa Water Quality Commission land disposal guidelines are used. If these sources do not cover unique plans, criteria contained in current technical literature and staff expertise will also be used.

Directory for Assistance

The following state and federal agencies can provide assistance in complying with water pollution control requirements:

Iowa Department of Environmental Quality (DEQ): IDEQ administers the state water pollution control program for animal feeding operations. DEQ staff can answer questions regarding the rules and application of the rules to individual feeding operations. DEQ's central office is in Des Moines, with regional offices in Manchester, Mason City, Spencer, Council Bluffs, Des Moines, and Washington.

County Extension Offices: County extension office staff can answer many questions pertaining to animal waste management. They have published information on most aspects of waste disposal systems. They do not do individual design work.

Area Extension Offices: Area extension offices offer more specialized assistance than a county office can provide. Area offices have animal science, farm management, and agronomy specialists, and some have a soil, water, and waste management specialist. These specialists will visit your farm and offer advice and recommendations, but won't do actual design work. Area offices can be contacted through your county extension office.

County Soil Conservation Service Offices: County Soil Conservation Service office staff can provide individual assistance in the design of certain types of animal waste facilities. They will run topographic surveys, assist in laying out facilities, and design some of the less complex facilities.

Area Soil Conservation Service Offices: Area Soil Conservation Service staff can do design work on individual facilities that are too complex for county SCS office personnel to handle. Each area office has at least one engineer on the staff, while county offices do not. Area offices can be contacted through your county SCS office.

U. S. Environmental Protection Agency (EPA): EPA administers the federal water pollution control program under which some Iowa animal feeding operations must apply for a federal waste discharge permit. EPA can answer questions regarding the federal permit program and its application to individual feeding operations. EPA can be contacted at: U. S. Environmental Protection Agency, Region VII, 1735 Baltimore, Kansas City, MO 64108.

The last four pages of this publication are permit applications. They can be cut out, or new application forms can be obtained from the Iowa Department of Environmental Quality, Henry A. Wallace Building, 900 East Grand Ave., Des Moines, Iowa 50319.

State of Iowa
Department of Environmental Quality
Water Quality Management Division

Official Use Only

File No. _____
Date Received _____

OPERATION PERMIT APPLICATION - CONFINEMENT FEEDING OPERATIONS

Instructions:

This form should be used when applying for a state operation permit for confinement animal feeding operations. To apply for a permit, this form should be completed, signed, and sent to the address shown in Item 10 at the end of this form.

This form can also be used to determine whether a permit application is required for a confinement feeding operation. By completing Items 5 through 10 of this form, a person can determine if permit application is required for an existing or proposed confinement feeding operation.

Definitions of some of the terms used in this form are given below:

"Animal enclosure" means a lot, yard, corral, building, or other area in which animals are confined.

"Confinement feeding operation" means an animal feeding operation consisting of one or more totally roofed animal enclosures in which animals are confined and fed or maintained for 45 days or more in any twelve month period and in which wastes are stored or removed as a liquid or semi-liquid.

Two or more animal enclosures under common ownership or management are deemed to be a single animal feeding operation if the enclosures are adjacent or a common area or system is utilized for the disposal of waste from the enclosures.

"New animal feeding operation" means an animal feeding operation whose construction was commenced on or after August 16, 1976, or whose operation is again commenced after a period of twelve months or more of discontinued operation.

"Animal capacity" means the maximum number of animals which will be confined, as determined by the applicant, in an animal feeding operation at any one time.

Assistance in completing this form may be obtained from County Extension Offices, County Soil Conservation Service Offices, or from the Department of Environmental Quality.

PLEASE TYPE OR PRINT IN DARK INK

1. Name of Confinement Operation: _____
(Individual, Company, Corporation, Etc.)

Address: _____
(Rural Route, Street) (City) (State) (Zip Code) (Phone)

2. Person legally responsible for the operation. This person will receive correspondence regarding this operation permit application:

Name: _____

Address: _____
(Rural Route, Street) (City) (State) (Zip Code) (Phone)

3. Location of the operation: _____
(County) (Township) (Section) (Quarter)

4. This application is for (check one): _____ (a) an existing confinement feeding operation
_____ (b) expansion of an existing confinement feeding operation
_____ (c) a new confinement feeding operation

If this application is for a new confinement operation or expansion of an existing confinement operation, give date when operation of the confinement facilities is scheduled to begin: _____
(Date)

5. List the animal capacity of the confinement feeding operation:

Beef Cattle	-----	_____	Head
Dairy Cattle	-----	_____	Head
Butcher and Breeding Swine (over 55 lbs.)	-----	_____	Head
Sheep and Lambs	-----	_____	Head
Horses	-----	_____	Head
Turkeys	-----	_____	Head

Yes 6. Has the Department of Environmental Quality sent written notification to you that permit application is required as a result of Departmental investigation?
 No

If Item 6 is answered yes, check the box at left.

Yes 7. Does the confinement feeding operation use an earthen waste storage lagoon or basin and the animal capacity listed in Item 5 exceed any of the following?
 No

Beef Cattle - - - - -	200
Dairy Cattle - - - - -	140
Butcher & Breeding Swine (over 55 lbs.) - - - - -	500
Turkeys - - - - -	11,000
Broiler or Layer Chickens - - - - -	18,000

If Item 7 is answered yes, check the box at left.

Yes 8. Does the confinement feeding operation use a formed waste storage tank (example: concrete, concrete block, wood or steel tank) and does the animal capacity listed in Item 5 exceed any of the following?
 No

Beef Cattle - - - - -	1,000
Dairy Cattle - - - - -	700
Butcher & Breeding Swine (over 55 lbs.) - - - - -	2,500
Sheep - - - - -	10,000
Turkeys - - - - -	55,000
Broiler or Layer Chickens - - - - -	90,000

If Item 8 is answered yes, check the box at left.

Yes 9.1 Does the animal capacity listed in Item 5 exceed any of the following?
 No

Beef Cattle - - - - -	100
Dairy Cattle - - - - -	70
Butcher & Breeding Swine (over 55 lbs.) - - - - -	250
Sheep - - - - -	1,000
Turkeys - - - - -	5,500
Broiler or Layer Chickens - - - - -	9,000

Yes 9.2 Are wastes from the confinement feeding operation discharged into a water of the State through a man-made drainage ditch, flushing system, or other man-made drainage device which was constructed primarily for the purpose of waste drainage?
 No

If both Items 9.1 and 9.2 are answered yes, check the box at left.

10. This application MUST BE SENT IN if any of the boxes at the left of this form are checked. This completed application should be signed and sent to the address below. All applications will be acknowledged by the Department upon receipt.

Iowa Department of Environmental Quality
Henry A. Wallace Building
900 East Grand Ave.
Des Moines, Iowa 50319

This application NEED NOT BE SENT IN if none of the boxes at the left of this form are checked. No operation permit will be issued for animal feeding operations not meeting operation permit application requirements. Applications received but not required will be acknowledged and the application will remain on file with the Department as part of its permanent records.

11. Signature: This application must be signed by the person who is legally responsible for the animal feeding operation and its associated waste disposal system.

I certify that the above information is true and accurate to the best of my knowledge. (Section 455B.49, Code of Iowa, provides for penalties for knowingly making any false statements, representation or certification on an application.)

Signature: _____ Date: _____

State of Iowa
Department of Environmental Quality
Water Quality Management Division

Official Use Only

File No. _____
Date Received _____

OPERATION PERMIT APPLICATION - OPEN FEEDLOTS

Instructions:

This form should be used when applying for a state operation permit for open feedlot animal feeding operations. To apply for a permit, this form should be completed, signed, and sent to the address shown in Item 13 at the end of this form.

This form can also be used to determine whether a permit application is required for an open feedlot. By completing Items 5 through 13 of this form, a person can determine if permit application is required for an existing or proposed open feedlot.

Definitions of some of the terms used in this form are given below:

"Animal enclosure" means a lot, yard, corral, building, or other area in which animals are confined.

"Open feedlot" means an animal feeding operation consisting of one or more unroofed or partially roofed animal enclosures in which animals are confined and fed or maintained for 45 days or more in any twelve month period and no crop, vegetation, or forage growth or residue cover is sustained during the period of confinement.

Two or more animal enclosures under common ownership or management are deemed to be a single animal feeding operation if the enclosures are adjacent or a common area or system is utilized for the disposal of waste from the enclosures.

"New animal feeding operation" means an animal feeding operation whose construction was commenced on or after August 16, 1976, or whose operation is again commenced after a period of twelve months or more of discontinued operation.

"Animal capacity" means the maximum number of animals which will be confined, as determined by the applicant, in an animal feeding operation at any one time.

Assistance in completing this form may be obtained from County Extension Offices, County Soil Conservation Service Offices, and from the Iowa Department of Environmental Quality.

PLEASE TYPE OR PRINT IN DARK INK

1. Name of open feedlot operation: _____
(Individual, Company, Corporation, Etc.)

Address: _____
(Rural Route, Street) (City) (State) (Zip Code) (Phone)

2. Person legally responsible for the open feedlot. This person will receive correspondence regarding this permit application.
 Name: _____

Address: _____
(Rural Route, Street) (City) (State) (Zip Code) (Phone)

3. Location of the operation: _____
(County) (Township) (Section) (Quarter)

4. This application is for (check one): _____ (a) an existing open feedlot
 _____ (b) expansion of an existing open feedlot
 _____ (c) a new open feedlot

If this application is for a new open feedlot or expansion of an existing open feedlot, give date when operation of the feedlot is scheduled to begin: _____
(Date)

5. List the animal capacity of the open feedlot:

Beef Cattle - - - - -	_____	Head
Dairy Cattle - - - - -	_____	Head
Butcher and Breeding Swine (over 55 lbs.) - - - - -	_____	Head
Sheep and Lambs - - - - -	_____	Head
Horses - - - - -	_____	Head
Turkeys - - - - -	_____	Head

Yes 6. Has the Department of Environmental Quality sent written notification to you that permit application is required as a result of Departmental investigation?
 No

If Item 6 is answered yes, check the box at left.

Yes 7. Does the animal capacity listed in Item 5 exceed any of the following.
 No

Beef Cattle - - - - -	1,000	
Dairy Cattle - - - - -	700	
Butcher and Breeding Swine (over 55 lbs.) - - - - -	2,500	
Sheep or Lambs - - - - -	10,000	
Turkeys - - - - -	55,000	

If Item 7 is answered yes, check the box at left.

Yes 8. Does the total animal unit capacity of the feedlot exceed 1,000 animal units? The table below can be used to calculate the total animal unit capacity of the feedlot. (Use the animal capacity(s) listed in Item 5).

	Animal Units
_____ Head Beef Cattle - - - - -	x 1.0 = _____
_____ Head Dairy Cattle - - - - -	x 1.4 = _____
_____ Head Butcher & Breeding Swine - - - - -	x 0.4 = _____
_____ Head Sheep and Lambs - - - - -	x 0.1 = _____
_____ Head Horses - - - - -	x 2.0 = _____
Total Animal Units =	_____

If Item 8 is answered yes, check the box at left.

Yes 9. Does the feedlot capacity listed in Item 5 exceed any of the following?
 No

Beef Cattle - - - - -	100
Dairy Cattle - - - - -	70
Butcher & Breeding Swine (over 55 lbs.) - - - - -	250
Sheep - - - - -	1,000
Turkeys - - - - -	5,500

If Item 9 is answered yes, complete all remaining portions of this form. If Item 9 is answered no, do not complete Items 10, 11, and 12. Continue to Item 13.

10.1 How far does runoff from the feedlot travel before entering a receiving stream?
 _____ feet. Note: This distance should be measured along the path of runoff flow.

Yes 10.2 At the point where runoff from the feedlot drains into the receiving stream, is the drainage area of the receiving stream greater than 3,200 acres (5 square miles)?
 No

10.3 Divide the distance listed in Item 10.1 by the animal capacity listed in Item 5.

$$\frac{\text{Feet (Item 10.1)}}{\text{Head (Item 5)}} = \frac{\text{Feet}}{\text{Head}}$$

Yes 10.4 Is the feet per head value calculated in Item 10.3 less than the applicable value of the table below?
 No

(Species)	(Feet Per Head)
Beef Cattle - - - - -	2.0
Dairy Cattle - - - - -	3.0
Butcher & Breeding Swine (over 55 lbs.) - - - - -	0.5
Sheep - - - - -	0.2
Turkeys - - - - -	0.05

Note: If feedlot runoff follows more than one drainage path to a receiving stream or the feedlot contains several animal species, separate determinations must be made for each drainage path or animal species.

If both Items 10.2 and 10.4 are answered yes, check the box at left.

Yes 11. Do wastes from this feedlot discharge into a water of the state through a man-made drainage ditch, flushing system, or other man-made drainage device which was constructed primarily for the purpose of waste drainage?
 No

If Item 11 is answered yes, check the box at left.

Yes 12. Are wastes from the feedlot discharged directly into a water of the state which originates outside of and traverses (flows across) the feedlot?
 No

If Item 12 is answered yes, check the box at left.

13. This application MUST BE SENT IN if any of the boxes at the left of this form are checked. This completed application form should be signed and sent to the address below. All applications will be acknowledged by the Department upon receipt.

Iowa Department of Environmental Quality
 Henry A. Wallace Building
 900 East Grand Ave.
 Des Moines, Iowa 50319

This application NEED NOT BE SENT IN if none of the boxes at the left of this form are checked. No operation permit will be issued for animal feeding operations not meeting operation permit application requirements. Applications received but not required will be acknowledged and the application will remain on file with the Department as part of its permanent records.

14. Signature: This application must be signed by the person who is legally responsible for the animal feeding operation and its associated waste disposal system.

I certify that the above information is true and accurate to the best of my knowledge. (Section 455B.49, Code of Iowa provides for penalties for knowingly making any false statements, representation or certification on an application.)

Signature: _____ Date: _____

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