

# OPEN FEEDLOT<sup>1</sup> OR COMBINED<sup>2</sup> OPERATION Construction Permit Application Form

#### **INSTRUCTIONS:**

Prior to construction, complete Section 1 to determine if a construction permit is required. If a construction permit is required, complete the rest of the form. Then, sign it and mail it as instructed in the submittal checklist No. 1 (pages 3 to 7). See page 7 for information regarding additional permits that may be required to your open feedlot.

#### SECTION 1 - Is a construction permit required?

If any of the following criteria are met, a construction permit is required prior to constructing, expanding or modifying the manure
control system at an open feedlot or a combined operation or prior to repopulating an open feedlot operation. Check all boxes that
apply:

#### Criteria

A) An open feedlot or a combined operation required to be issued a National Pollutant Discharge Elimination System (NPDES) <sup>3</sup>
permit. This includes (check one box):

- A large CAFO<sup>4</sup>, as defined in 567 IAC 65.1(1)/40 CFR 122.23(b). You must combine same type of animals in confinement<sup>5</sup> operation buildings and open feedlot pens that are under common ownership or management. See page 8 for CAFO definitions.
- A medium CAFO<sup>4</sup>, as defined in 567 IAC 65.1(1)/40 CFR 122.23(b). You must combine same type of animals in confinement<sup>5</sup> operation buildings and open feedlot pens that are under common ownership or management. See page 8 for CAFO definitions.
- A designated CAFO<sup>4</sup>, as defined in 567 IAC 65.1(1). See page 8 for CAFO definitions.

And any of following is planned (check one box):

- Construction or expansion of a settled open feedlot effluent basin.
- Construction or expansion of an Alternative Technology (AT) system<sup>6</sup>.
- Installation of a settled open feedlot effluent transfer piping system.
- B) The animal unit capacity (AUC)<sup>7</sup> of the open feedlot operation will be increased to more than the AUC<sup>7</sup> approved by the department in a previous construction permit. To calculate the AUC<sup>7</sup>, use Table 1 (page 2.)
- C) The volume of settled open feedlot effluent, settleable solids or open feedlot effluent stored at the open feedlot operation will be increased to more than the volume approved by the department in a previous construction permit.
- D) Repopulation of an open feedlot operation if it was discontinued for 24 months or more and the AUC<sup>7</sup> would be 1,000 AU or more. To calculate the AUC<sup>7</sup>, use Table 1 (page 2.)

#### **SECTION 2 - General Information**

A) Name of operation:								
	Location:							
		(1/4 1/4)	(1/4)	(Section)	(Tier & Range)	(Name of Township)	(County)	
в) О	wner informa	tion:						
	Name:	Title:						
	Address:							
	Telephone:		F	ax:	En	nail:		

<sup>&</sup>lt;sup>1</sup> Open Feedlot: Unroofed or partially roofed area where livestock or poultry are confined for more than 45 days out of any 12-month period.

<sup>&</sup>lt;sup>2</sup> Combined: combined operation includes both of the other two definitions in items 1 & 5.

<sup>&</sup>lt;sup>3</sup> NPDES permit as defined in rule 567 IAC 65. See page 7 for instructions on how to download the open feedlot operation rules.

<sup>&</sup>lt;sup>4</sup> CAFO: Concentrated Animal Feeding Operation as defined in rule 567 IAC 65.1(1)/40 CFR 122.23(b). You must combine same type of animals, in confinement buildings and open feedlot pens that are under common ownership or management. To calculate the animal capacity of the operation or combined operation, use Table 1 If the combined animal capacity meets the large CAFO or medium CAFO definitions, your operation is a CAFO. A CAFO also includes a designated CAFO. See page 7 for instructions on how to download the open feedlot operation rules and page 8 for a CAFO description.

<sup>&</sup>lt;sup>5</sup> Confinement: Totally roofed area where livestock or poultry are confined for more than 45 days out of any 12-month period.

<sup>&</sup>lt;sup>6</sup> AT systems require extensive monitoring and reporting which will be required conditions in any NPDES permit. An application for a permit does not guarantee that a construction permit and NPDES permit will be granted or that any NPDES permit will be renewed.

<sup>&</sup>lt;sup>7</sup> AUC: Animal Unit Capacity as defined in rule 567 IAC 65.1(1). You must combine animals in confinement buildings and open feedlot pens that are under common management or ownership. See page 7 for instructions on how to download the rules.) To calculate the AUC of the operation, use Table 1.

C) Person to contact with questions about this application (if different than owner):

Name:		Title:	
Address:			
Telephone	Fax:	Email:	

D) Adjacency criteria: do you own another open feedfeedlot operation, or do you manage another open feedlot operation that is located within 1,250 feet of the open feedlot operation that is applying for a construction permit? | No

Yes. Include the animals from the adjacent feedlot(s) in Table 1 (below)

E) This construction permit application is for:

A new open feedlot operation

Expansion of an existing open feedlot operation

Modification of the manure control system at an existing open feedlot operation

Reopening an open feedlot operation that was discontinued for 24 months or more

An Alternative Technology (AT)<sup>6</sup> manure control system at an open feedlot operation

An animal feeding operation that after combining the same type of animals in confinement buildings and open feedlot pens, under common ownership or management, meets the definition of large CAFO<sup>4</sup>, medium CAFO<sup>4</sup> or designated CAFO<sup>4</sup>, that is proposing to install manure and runoff controls

F) Animal capacity and  $AUC^7$  of the animal feeding operation:

- If the operation has animals housed in confinement buildings and open feedlot pens that are under common ownership or management, for each animal type enter the current and proposed number of head in columns [1] and [2]. Add the number of head entered in columns [1] and [2], for each animal type. For each row, look at the Total No. of Head (combined operations) and determine if it meets or exceeds the large CAFO<sup>4</sup> or medium CAFO<sup>4</sup> definitions.
- If this is only an open feedlot operation, for each row enter the current and proposed number of head in column [2] and • determine if it meets or exceeds the large CAFO<sup>4</sup> or medium CAFO<sup>4</sup> definitions. If the open feedlot maintains more than one animal type, add all animal units in open feedlots and determine if the Total AUC<sup>7</sup> is 1,000 AU or more. Also, if you answered "Yes" in SECTION 1, D) (adjacency), include the animals of the adjacent open feedlot operation(s).
- If the Total number of head for each animal type at an open feedlot or at a combined CAFO<sup>4</sup>, meets or exceeds the large CAFO<sup>4</sup> or medium CAFO<sup>4</sup> definitions, or if the Total AUC<sup>7</sup> at the open feedlot operation meets or exceeds 1,000 AU, your operation is a CAFO<sup>4</sup>. See page 8 for CAFO<sup>4</sup> definitions.

	Confinements		Open Feedlots			Combined	
Animal Type	Current No. Head	Proposed No. Head [1]	Current No. Head	Proposed No. Head [2]	x Factor	= AUC <sup>7</sup>	Total No. Head [1] + [2]
Cattle (other than veal calves or mature dairy cows) which includes beef cattle, steers, cow-calf pairs, dairy heifers or immature dairy					1.0		
Veal calves					1.0		
Mature dairy cows (milked or dry)					1.4		
Swine, 55 lbs. or more					0.4		
Swine nursery, 15 to 55 lbs.					0.1		
Sheep and goats, including lambs					0.1		
Chicken broilers, 3 lbs. or more					0.01		
Chicken broilers, less than 3 lbs.					0.0025		
Chicken layers, 3 lbs. or more					0.01		
Chicken layers, less than 3 lbs.					0.0025		
Turkeys, 7lbs or more					0.018		
Turkeys, less than 7 lbs.					0.0085		
Horses					2.0		
	•		•		otal AUC <sup>7</sup> :		

#### Table 1: Animal Capacity and Animal Unit Capacity (AUC<sup>7</sup>)

Total AUC':

My animal feeding operation is: An open feedlot that is a large CAFO <sup>4</sup> A combined CAFO <sup>4</sup> that is also a large or medium CAFO <sup>4</sup>	<ul> <li>An open feedlot that is a medium CAFO<sup>4</sup></li> <li>A designated CAFO<sup>4</sup></li> </ul>			
I hereby certify that the information contained in this application is complete and accurate.				
Signature of owner(s)	Date:			

**CAVEAT**: This form is only a summary of Iowa Code chapter 459A and the DNR's administrative rules. It is a guidance document and should not be used as replacement for the statutory provisions and administrative rules (collectively, the law). While every effort has been made to assure the accuracy of this information, the law will prevail in the event of a conflict between this document and the law.

# Applicant's Submittal Checklist No. 1 Open Feedlots1 with Conventional Systems (567 IAC Chapter 65.1(2)"h") or AT Systems6

Submit the information requested in this checklist and include this checklist with your application. Incomplete applications will be immediately returned to applicant. If included with the construction permit application, the NPDES<sup>3</sup> permit application form and NPDES fee should be the first page of the application package.

# Mail one package containing (4) copies, unless indicated otherwise, of Items 1 through 6, and if applicable Item 7, as instructed on page 7 and in the following order:

<ul> <li>Item 1 - NPDES<sup>3</sup> permit application form and NPDES fees.</li> <li>NPDES<sup>3</sup> permit application and fees (Forms 542-4001 and 542-1250) are included. Include a check payable to Iowa D</li> <li>One (1) copy of the Nutrient management plan (NMP) if an NPDES<sup>3</sup> permit is to be submitted.</li> <li>One (1) copy of the copy of public notice for the nutrient management plan and anti deg analysis.</li> </ul>	
<b>Item 2</b> - <b>Construction permit application form</b> <u>DNR Form 542-1427</u> , completed and signed by the owner (previous pages)	
<ul> <li>Item 3 - Engineering report Must be stamped and signed (on original) by a licensed professional engineer (PE) in the stat lowa or by an engineer of the Natural Resources Conservation Service (NRCS). The report shall describe in detail the prop manure control system and the feedlot runoff control system (567 IAC Chapter 65.1(2)"h") or AT System<sup>6</sup> being proposed including calculations that show the detailed system requirements:</li></ul>	oosed d, trol fs, please period.
I have reviewed and submitted the information for engineering report (Engineer initial):	
I have reviewed the engineering report that has been submitted to the DNR and it meets DNR requirements (DNR representative initial):	
<ul> <li>Item 4 - Engineering plans. Must be stamped and signed (on original) by a licensed professional engineer (PE) in the state lowa or by an engineer of the Natural Resources Conservation Service (NRCS). The plans must include the following:         <ul> <li>A certification that the design of the settled open feedlot effluent basin and/or AT System<sup>6</sup> complies with the construdesign standards of Division II of chapter 65, as required in 567 IAC 65.203(3).</li> <li>Information (e.g. maps, drawings, aerial photos, etc.) that shows the location of your feedlot, including the name of feedlot and legal description (¼ ¼, ¼, Section, Tier and Range, Township name, County), as required in 567 IAV 65.202</li> <li>The location of any other open feedlot operation that you own or manage that is located within 1,250 feet of the op feedlot operation that is applying for a construction permit; or that is adjacent, as defined in 567 IAV 65.204(2).</li> <li>A plan view that shows the location of the feedlot(s), proposed solids settling basin, settled open feedlot effluent basin (effluent control structures) and AT System<sup>6</sup> components:</li></ul></li></ul>	uction the )4(2). en sin

Cross sectional view(s) of the proposed settled open feedlot effluent basin:

<ul> <li>Indicate settled open feedlot effluent basin dimensions at inside top of berm and include maximum liquid level</li> <li>Indicate elevations at settled open feedlot effluent basin tops and bottoms, also the natural and final grade elevel</li> <li>Indicate drainage directions and effluent system flowpath.</li> <li>Basin inlet and outlet details (manure transfer pipe.)</li> <li>Indicate the proposed liner thickness and the berm widths.</li> <li>Indicate the side slope of the basin.</li> <li>If a groundwater lowering system is required 567 IAC 65.206(3)"c", include details and calculations.</li> <li>All elevations referenced to an identified benchmark – County benches as established by NGVD29Datum (USG topographic map, MSL)</li> <li>Recommended Details for Drawings:</li> <li>Erosion control (riprap or equal) provided at basin inlets, outlets, spillways, and corners.</li> <li>Overflow emergency spillway.</li> <li>Maximum 3:1 berm slope (inner and outer.)</li> </ul>	evations.
	Initials
I have reviewed and submitted the information for engineering drawings (Engineer initial):	
I have reviewed the engineering drawings that has been submitted to the DNR and it meets DNR requirements (DNR representative initial):	
Item 5 - Soils and Hydrogeologic Report. The soils and hydrogeologic report shall address all of the following requirem for the soils and hydrogeologic conditions, subsurface soil classification and the result of soils investigation at the proport must be conducted as required in S67 IAV 65.206(2)"a" to "c"(1)-(7) and/or S67 IAC 65.207(4): The report must be prepared by a qualified person ordinarily engaged in the practice of performing soil investigation and the result of soils investigation at the proposed basin bottom. A detailed description of three continuous core samples – minimum of three per Cell (Settled Open Feedlot Eff Basin), must be included. All boring logs should provide soil profile characterization to identify both depth to so high ground water table and Loess/Till interface – to a minimum of 10 feet below the proposed basin bottom. Carbonated bedrock depth determination: If proposed basin is in karst according to DNR siting atlas the soils investigation shall include a description of one 25 ft deep coring below bottom of proposed structure OR a we from within 100 feet of the proposed structure (well logs may be found at the <u>GEOSAM</u> website). If more than or more of unconsolidated(suitable) material exists then the site is not considered to be karst. I if site is in karst or drains to a known sinkhole then settled open feedlot effluent basins and all manure stor structures must be formed, pursuant to 567 IAC 65.206(3)"6" is meed. Determine if an artificial groundwater lowering system as required in 567 IAC 65.206(3)"6" is needed. Determine if an artificial groundwater lowering system as required in 567 IAC 65.206(3)"6" is needed. Determine if an artificial groundwater lowering system as required in 567 IAC 65.206(3)"6" is needed. Determine if an artificial groundwater lowering system as required in 567 IAC 65.206(3)"6" is needed. Water table map should be considered. Water table map should be considered. I hdicate in a cr	bosed ons. fluent easonal II log 25 feet orage The istics and g wells. ross
I have reviewed and submitted the information for soil & hydrogeological report (Engineer initial):	
I have reviewed the soil & hydrogeological report that has been submitted to the DNR and it meets DNR requirements (DNR representative initial):	
<ul> <li>Item 6 - Technical Specifications. Must be prepared by a licensed professional engineer (PE) in the state of Iowa or by a engineer of the Natural Resources Conservation Service (NRCS), that address the following:</li> <li>The technical specifications for the basin and/or AT System<sup>6</sup> must describe in detail, all design, construction and specifications for the basin to meet the design requirements of 567 IAC Chapter 65, Division III "Open Feedlot Open"</li> </ul>	

<ul> <li>Technical specifications for the basin and/or AT System<sup>6</sup> to meet drainage tile removal standards of 567 IAC 65.206(3).</li> <li>The technical specifications shall also describe the liner construction standards for the basin to meet the requirement 567 IAC 65.206(4)"a"(1)-(2) or "b":</li> <li>Provide minimum of one-foot thick compacted clay liner on interior berms and bottom of settled open feedlot et basin(s).</li> <li>Conduct tests to show that percolation of berm and bottom do not exceed 1/16 inch per day (1.8x10<sup>-6</sup> cm/s) at design depth.</li> <li>Summary of predictive computer modeling results for any proposed AT System<sup>6</sup> as required by 567 IAC 65.207(6).</li> </ul>	nts of effluent
I have reviewed and submitted the information for technical specifications (Engineer initial):	
I have reviewed the technical specifications that has been submitted to the DNR and it meets DNR requirements (DNR representative initial):	
<ul> <li>Item 7 - Well waiver, if needed. In accordance to 561 IAC 10, the applicant may request a well waiver if the proposed op feedlot effluent structures do not comply with the well separation distance requirements of 567 IAC 65.205(1) and 65.20 The well waiver request shall be made in writing to the Director, at the time the construction permit application is submit Call 712-262- 4177 for well waiver procedure.</li> <li>A. For each well that does not meet the required separation distance, the following items must be submitted:         <ol> <li>Well location:</li> <li>Legal description of each well in 1/4 1/4, 1/4, Section, Tier, Range, and County.</li> <li>Image of proposed site (in the form of a site plan or drawn on an aerial photo) with well locations and distances to proposed new structures and other landmarks.</li> <li>Recent water analysis for nitrate-N from a certified laboratory.</li> <li>B. If gross contamination is indicated, submit as many of the following items as possible:</li></ol></li></ul>	95(2). itted. s marked he taller, s.
	Initials

I have reviewed and submitted the information for well waiver information (Engineer initial):	
I have reviewed the well waiver information that has been submitted to the DNR and it meets DNR requirements (DNR	
representative initial):	1

#### DO NOT MAIL THIS PAGE

# Instructions on finding the open feedlot<sup>1</sup> operation rules – <u>567 IAC Chapter 65</u>:

- 1. Go to <u>www.iowadnr.gov</u> and click on "Environmental Protection", then select "Animal Feeding Operations", then select "AFO Rules and Regulations".
- 2. Scroll until you find "Current Rules" and click on Chapter 65.
- 3. Scroll until you find the open feedlot operation rules which are in "DIVISION III"

## Information about other permits that may be required:

This section is for informational purposes only. The applicant is responsible for verifying any additional permit requirements, with the corresponding DNR office, and for obtaining any other local, state or federal permits that may be required to the open feedlot operation.

- Open feedlot<sup>1</sup> operation structures exceeding storage capacity or dam height thresholds or located on a flood plain or within a floodway of a river or stream may be required to obtain DNR flood plain development permits and provide protection from inundation by flood waters, as specified in the Iowa Administrative Code, 567-Chapters 71 and 72. For more information contact the Flood Plain Management Program at 866-849-0321 or visit: <a href="https://www.iowadnr.gov/Environmental-Protection/Land-Quality/Flood-Plain-Management">https://www.iowadnr.gov/Environmental-Protection/Land-Quality/Flood-Plain-Management</a>.
- A Storm water permit General permit No. 2, associated with construction activities is required, prior to disturbing any soil if the total construction site area to be disturbed equals or exceeds one (1) acre of land. This includes the clearing, grading and excavation of the animal feeding operation structures, even with phased construction. The permit must be obtained before commencement of soil disturbing activities for the project. For more information contact the Storm Water Program at 515-217-0875 or visit: <a href="https://www.iowadnr.gov/Environmental-Protection/Water-Quality/NPDES-Storm-Water">https://www.iowadnr.gov/Environmental-Protection/Water-Quality/NPDES-Storm-Water</a>.
- A water use permit is required for the withdrawal or diversion of more than 25,000 gallons per day of water. Water purchased from municipal or rural water systems is excluded. For additional information, contact the Water Supply Section at 515-725-0336 or visit: <u>https://www.iowadnr.gov/Environmental-Protection/Water-Quality/Water-Supply-Engineering/Water-Allocation-Use</u>.

#### **Questions:**

- Questions about open feedlot<sup>1</sup> construction permit requirements or regarding this form should be directed to an engineer of the animal feeding operations (AFO) Program at 712-262-4177 or go to <a href="http://www.iowadnr.gov">http://www.iowadnr.gov</a> (hover over "Environmental Protection" and select "Animal Feeding Operations").
- To contact the appropriate DNR Field Office, go to <a href="https://www.iowadnr.gov/fieldoffice">https://www.iowadnr.gov/fieldoffice</a>.

### Mailing Instructions:

If you opt to have the pre-design meeting with DNR to ensure the "Fast track" permitting process (see Open Feedlot Construction Permit Manual), mail the construction permit application and requested documents in Checklist No. 1, as instructed in the predesign meeting with DNR.

If you choose not to have the pre-design meeting, at least 90 days before the date that construction, installation or modification is scheduled to start, mail 4 copies of the construction permit application documents, Items 1 through 6, and if applicable Item 7 to the following address:

Iowa Department of Natural Resources Environmental Services Division Field Office 3, Gateway North 1900 N Grand Ave Ste E17 Spencer IA 51301

# **CAFO DEFINITIONS**

*"Large concentrated animal feeding operation"* or *"large CAFO."* An AFO is defined as a large CAFO if it stables or confines as many as or more than the numbers of animals specified in any of the categories shown below. An AFO is also defined as a large CAFO, if after combining animals in confinement structures and open feedlot pens, it meets or exceeds any of the following:

- 1. 700 mature dairy cows, whether milked or dry;
- 2. 1,000 cattle, including but not limited to heifers, steers, bulls, veal calves and cow/calf pairs;
- 3. 2,500 swine each weighing 55 pounds or more;
- 4. 10,000 swine each weighing less than 55 pounds;
- 5. 500 horses;
- 6. 10,000 sheep or lambs;
- 7. 55,000 turkeys;
- 8. 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system;
- 9. 125,000 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
- 10. 82,000 laying hens, if the AFO uses other than a liquid manure handling system;
- 11. 1,000 animal units, where more than one category of animals is maintained using the same type of operation.

*"Medium concentrated animal feeding operation"* or *"medium CAFO."* The term medium CAFO includes any AFO with the type and number of animals that fall within any of the ranges listed in paragraph *"a"* of this definition and which has been defined or designated as a CAFO. An AFO is defined as a medium CAFO if:

- a. The type and number of animals that it stables or confines fall within any of the ranges shown below. You must combine animals in confinement structures and open feedlot pens:
  - (1) 200 to 699 mature dairy cows, whether milked or dry;
  - (2) 300 to 999 cattle, including but not limited to heifers, steers, bulls, veal calves and cow/calf pairs;
  - (3) 750 to 2,499 swine each weighing 55 pounds or more;
  - (4) 3,000 to 9,999 swine each weighing less than 55 pounds;
  - (5) 150 to 499 horses;
  - (6) 3,000 to 9,999 sheep or lambs;
  - (7) 16,500 to 54,999 turkeys;
  - (8) 9,000 to 29,999 laying hens or broilers, if the AFO uses a liquid manure handling system;
  - (9) 37,500 to 124,999 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
  - (10) 25,000 to 81,999 laying hens, if the AFO uses other than a liquid manure handling system;
- (11) 300 to 999 animal units, where more than one category of animals is maintained using the same type of operation; andEither one of the following conditions is met:
  - (1) Manure or process wastewater is discharged into waters of the United States through a manmade ditch, flushing system, or other similar man-made device; or
  - (2) Manure or process wastewater is discharged directly into waters of the United States which originate outside of and pass over, across or through the facility or otherwise come into direct contact with animals confined in the operation.

#### "Designated CAFO" means an AFO that has been designated as a CAFO pursuant to rule 65.103(455B,459A).

**65.201(1)** The department may evaluate any animal feeding operation that is not defined as a large or medium CAFO, and designate it as a CAFO if, after an onsite inspection, it is determined to be a significant contributor of manure or process wastewater to waters of the United States. In making this determination, the department shall consider the following factors:

- a. The size of the operation and the amount of manure or process wastewater reaching waters of the United States;
- b. The location of the operation relative to waters of the United States;
- c. The means of conveyance of manure or process wastewater to waters of the United States;
- d. The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of manure or process wastewater into waters of the United States; and
- e. Other relevant factors.

**65.201(2)** No animal feeding operation with an animal capacity less than that specified for a medium CAFO shall be designated as a CAFO unless manure or process wastewater from the operation is discharged into a water of the United States:

- a. Through a man-made ditch, flushing system, or other similar man-made device; or
- b. Which originates outside of and passes over, across or through the facility or otherwise comes into direct contact with animals confined in the operation.

**65.201(3)** The owner or operator of a designated CAFO shall apply for an NPDES permit no later than 90 days after receiving written notice of the designation.