

# Chapter 7: Applicator Rules

Revised November 2002

Iowa law requires manure applicators to be certified. There are two classifications of manure applicators: commercial manure applicators and confinement site manure applicators.

Commercial manure applicators are those who apply manure for others for a fee. Commercial manure applicators must be certified regardless of the size of operation or type of facility (liquid or dry; confinement or open lot) from which they are hauling and or land-applying manure.

A confinement site manure applicator is “a person who applies manure stored at a confinement site, other than a commercial manure applicator.” A confinement site contains a manure storage structure which is part of a confinement feeding operation as defined by “an animal feeding operation in which animals are confined to areas which are totally roofed.” Confinement site applicators applying manure from a small animal feeding operation (SAFO) are exempt from being certified.

Until 2002, the law defined a SAFO as an animal feeding operation that has an animal weight capacity of 200,000 pounds or less for animals other than bovine, or 400,000 pounds or less for bovine. In 2002, the definition of a SAFO changed under Senate File 2293.

The new definition of a SAFO is related to animal unit (a.u.) capacity and is defined as an operation with 500 or less a. u. If a confinement livestock operation has more than a 500 a.u. capacity, the operator must be certified to apply manure, see Table 1 for a.u. equivalents. To determine your a.u. capacity, multiply the number of animals you have by species and size by the corresponding animal unit factor. If the product is greater than 500, you must be certified to apply manure.

Confinement site applicators may include people who are part-time employees of, or who trade work with, other active farmers. The following people are exempt from commercial manure

applicator certification, but must still be certified as a confinement site applicator:

- Someone actively engaged in farming and trades work with another active farmer,
- Someone employed by an active farmer and applies manure only as in incidental part of the job,
- Someone who applies manure as an incidental part of a custom farming operation, or
- Someone who applies manure as an incidental part of their job duties.

Exemptions: Confinement site applicators are exempt from certification if they are:

- Part-time employees or family members of a confinement site applicator and are under the direct instruction and control of a certified confinement site manure applicator who is physically present and can physically observe and communicate with the supervised person at all times.

## **Becoming Certified and Maintaining Your Certification**

Confinement site manure applicator certification is good for 3 calendar years, starting the year the applicator is certified. Confinement site manure applicators can become certified initially or renew their 3- year certification in one of three ways:

- Attend a two-hour training course offered in January through February annually at County Extension offices, or
- Watch a 2-hour training video offered by County Extension offices
- Take and pass the 50-question, multiple-choice, true-false exam offered at Department of Natural Resources (DNR) field offices

Each of these options requires that the appropriate paperwork and fee be submitted to the DNR in order to complete the certification process. Beginning in January 2003, the fee is \$100 for 3 calendar years.

Applicators who are applying for their initial certification or who are renewing their license by choosing the training option must maintain their certification by attending 2-hours of continuing education each year of the three-year certification period. If they do not attend 2-hours of continuing education annually, they will be required to take and pass the exam prior to renewing their certificates. To renew a confinement site manure applicator certificate applicators must:

- send the renewal request on the DNR form prior to or postmarked by March 1,
- include the renewal fee, and
- pass the exam or attend the continuing education courses.

Applicators who choose to take the exam to become initially certified, are not required to attend 2 hours of continuing education each year. Once they pass the exam, their certification is good for three calendar years. At the end of the three-year period, they may choose to test again to recertify or they may choose to begin the next certification period by attending a training session annually.

Applicators who are required to take the exam to recertify due to a missed training session during their three-year certificate will have to take the exam, pass it and renew their certificate by testing or training prior to March 1 in the year after their license expires. Applicators who are required to take the exam will receive a letter from DNR. Applicators who fail the exam may take it again on another day. If the applicator fails the test twice, they must attend a training session to be eligible to renew their certificate. Applicators who fulfill past training requirements by testing (or training), may then choose to take an exam again a different day to begin their next 3-year certification cycle.

If applicators who are required to take the exam to recertify, choose not to take the consecutive exam to begin their next certification cycle, they can attend 2 hours of continuing education for each year of their certification (including the year in which they take the exam) in order to avoid taking

the exam again at the end of their 3-year certification period.

New applicators can take the exam or view the 2-hour videotape at any time during the calendar year to become initially certified.

### **Uniform Certification Deadline**

Starting in 2002, all certificates begin and end based on a calendar year. This means all confinement site manure applicator certifications expire December 31<sup>st</sup> of the third year of the license. Confinement site applicators have until March 1 of the following year to apply manure without being certified. After March 1 confinement site applicators who are renewing their certificates cannot apply manure until they pass the exam or watch the training video and send in the required form and fee for renewal. Any renewal that is postmarked after March 1 of the year following the expiration date will be charged an additional late fee of \$12.50 by the DNR and will not receive their certificate until all fees are paid.

Confinement site applicators that have never been certified can become certified at any time of year by completing one of the options listed above, but their certificate will expire on December 31 of the third year of the certification.

Example: Joe Smith has expanded his swine finishing operation and is now required to be certified to apply manure. He decides to watch the 2-hour training video at his county extension office on August 13, 2002. Joe watches the video, completes the appropriate paperwork and submits the paperwork and the fee to DNR on the same day he watches the video. Joe's license will expire on December 31<sup>st</sup> of the third year or December 31, 2004 (not on August 13, 2005). He will have until March 1, 2005 to complete the first of his three annual training sessions (or pass a test) and apply for his renewal certificate. If his application is postmarked after March 1, 2005, he will be assessed the late fee of \$12.50.

Confinement site manure applicators who wish to become certified by taking and passing the exam must schedule an appointment at the DNR field offices to take the exam. They must bring a #2

lead pencil and photo identification to the office. Applicators who fail the exam may take the test on a different day. There is no fee to take the exam. To schedule an appointment to take the exam contact one of the DNR field offices listed in Table 2. If the exam for initial certification is passed, the applicator must send the completed application form and the fee to DNR prior to manure application.

### **Requirements for Manure Applicators**

All confinement site applicators must comply with state regulations for land application of manure. These regulations include following the requirements of their manure management plan, maintaining application records, observing and implementing separation distances for land application of manure and reporting releases to the DNR.

### **Manure Management Plans**

Manure management plans formally outline when, where and how the manure from a livestock operation will be applied for confinement operations built or expanded since May 31, 1985 with more than 500 a.u. Manure management plans are not required for open feedlots or for SAFOs. SAFOs are defined as having 500 or less a.u. Table 1 gives facility size requirements by species and species size for facilities that need manure management plans.

Manure management plans are currently based on the nitrogen needs of the crops to be grown. In 2002, the Iowa Legislature passed Senate File 2293 that calls for manure management plans in the future to be developed based on the Phosphorus Index. It is anticipated that these rules and phosphorus-based plans will be phased in over several years beginning in July 2003. Until those rules are developed, livestock producers should develop manure management plans based on the nitrogen uptake of crops.

A manure management plan is a legal document developed by the livestock producer or by a consultant hired by the producer. The plan must outline how manure from the operation will be applied so that it does not cause pollution. In

addition to defining the amount of manure that will be applied it defines:

- The owner and name of the confinement feeding operation, including the mailing address and phone number
- The contact person for the confinement feeding operation, including the mailing address and phone number
- Animal unit capacity
- Location of confinement feeding operation (indicated on the plat map) and by legal description
- Estimate of animal production and manure volume or weight produced
- Total nitrogen available for application from the confinement operation
- The optimum yield and the nitrogen usage rate for the crops indicated in the crop schedule
- Manure application methods and timing of the application
- Calculations to determine the land area required for manure application
- Location of manure application areas
- Manure easements between livestock producers and landowner, if the land is not owned or rented by the owner of the confinement facility
- Methods, structures or practices that will be used to reduce soil loss and potential water pollution on highly erodible land (HEL).
- Methods or practices that will be used to reduce odor if spray irrigation equipment is used

Manure management plans required by the DNR must be submitted on DNR forms. These forms are available at DNR field offices. The forms may also be downloaded off the web at this site: <http://www.state.ia.us/dnr/organiza/epd/wastewtr/feedlot/manure.htm>

Manure management plans are public record and can be accessed by anyone requesting a copy. However, updates of the plan and application records are confidential, but must be provided to DNR staff upon request and can be made public under specific conditions.

Note: Because Iowa law is in the process of changing from manure management plans based on crop nitrogen needs to some type of planning process based on phosphorus, the link to the manure plans page above still contains the original plan forms and instructions based on the nitrogen requirement of crops. Please check with DNR regarding fees and paperwork required to submit a manure management plan.

Manure Management Plans should be submitted to:

Iowa Department of Natural Resources  
Environmental Services Division  
Wallace State Office Building  
900 East Grand Ave.  
Des Moines, IA 50319-0034

A copy of the current manure management plan must be kept on file at the site of the confinement feeding operation. Other arrangements acceptable to the DNR can be made so that a copy of the current plan be made available to DNR within two working days after being requested by DNR. The manure management plan and easements (if required) must be updated prior to applying manure on any land not in the current plan. The manure management plan must also be updated prior to any changes in the application rate or method.

Effective February 13, 2002, all manure management plans for newly constructed sites or newly expanded sites need to be submitted to the County Board of Supervisors in the county where the operation is located. In addition, proof that the plan was submitted to the County Board of Supervisors must be sent with the manure management plan when it is submitted to the DNR. DNR requires you keep a copy of the plan you submit to the County Board of Supervisors and the DNR for your records. DNR is required to approve or disapprove a new manure management plan within 60 days of receiving the complete plan. DNR is required to approve or disapprove an updated plan for an expanded site within 30 days of receiving the complete plan.

Beginning on March 1, 2003, the DNR will require annual submission of manure management plans. The process by which this annual

submission requirement is going to be accomplished is currently being developed. DNR plans to offer both an electronic submission format and the option of submitting a paper copy. Please consult the DNR if you have questions about this requirement. Also beginning March 1, 2003, manure management plans will need to be submitted annually to the DNR, the county board of supervisors where the confinement is located, and to the county board of supervisors where the manure is applied.

Currently, Iowa law requires any person submitting an original manure management plan to include the \$250 manure management plan filing fee. The following two fees are proposed at the time of this printing: 1) annual compliance fee and 2) indemnity fee.

The annual manure management plan submission shall include an annual compliance fee of \$0.15 per a.u. based on the a.u. capacity for the site covered by the manure management plan. If the person submitting the manure management plan is a contract producer, the active contractor shall pay the annual compliance fee. An indemnity fee of \$0.10 per a.u. is required of persons submitting an original manure management plan or for people expanding a facility and filing an updated manure management plan.

### **Application Records**

Confinement site applicators are required to keep records of manure application for three years following the year of application or for the length of the crop rotation, whichever is greater. Application records should be maintained by the site of the confinement feeding operation unless other arrangements acceptable to the DNR have been made so that a copy of the application records can be made available to the DNR within two working days after being requested by DNR.

Application records must include the following information:

- Methods of application
- Date(s) when the manure from the confinement facility was applied or sold
- Location of the field (legal description) and number of acres where the manure was applied
- The manure application rate

The DNR may inspect manure management plans and application records at any time. Manure application records that are maintained at the confinement site are confidential and can only be made public under specific conditions, but must be provided for inspection to DNR staff upon request.

### **Separation Distances for Land Application of Manure**

Separation distances for land application of manure are defined by type of manure, type of operation, the method of application that is used and the defined protected area. Please see tables 3, 4, and 5 at the end of this chapter for a list of separation distances. In addition to the state regulations for separation distances for land application of manure, a recommended, but not required practice is to avoid application within 200 feet of (and draining into) a surface intake for a tile line.

Please see the following list of recommended application practices:

- Manure application on frozen or snow-covered ground should be avoided if possible. If manure is applied on frozen or snow-covered ground, it should be restricted to slopes of 4 percent or less where adequate erosion control practices exist.
- Manure application on cropland subject to flooding more than one year in 10 should be incorporated or injected within 24 hours.
- On cropland with a slope of more than 10 percent, manure should be applied only where adequate erosion control measures exist.

### **Reporting Spills and Releases**

Iowa law requires that manure spills and releases be reported to the DNR as soon as possible but not more than 6 hours after the onset or discovery of the spill or release. A release is defined as “an actual, imminent or probable discharge of manure from an animal feeding operation structure to surface water, groundwater, drainage tile line or intake, or to a designated area resulting from storing, handling, transporting or land-applying manure.” See Table 4 for a list of designated areas. During normal business hours spills and releases should be reported to your local DNR field office. See Table 2 for contact information. Spills and releases that occur after normal business hours, or on weekends or Holidays should be reported to **(515) 281-8694** and to the local sheriff’s office or police department.

If you are not sure who to call or how to contact somebody, please call your local sheriff’s department or call 911 and ask them to report the spill to the appropriate agencies.

These materials were developed in cooperation with the Iowa Department of Natural Resources. Materials were adapted from DNR-116 (Revised 11/02) and DNR-113 (Revised 10/02).

**Table 1: Equivalent number of confinement animals to define a small animal feeding operation (SAFO) under the new law and previous law.**

				New Law	Previous Law
	Animal Types/ Production Phases	IA Ave. Weight (lbs.)	A.U. factor	SAFO = ≤ 500 animal units (# of animals)	SAFO = ≤ 200,000 lbs. for non-cattle and ≤ 400,000 for cattle (# of animals)
Cattle	Veal Calves	150	1	500	2,667
	Beef/Dairy Feeder Cattle	500	1	500	800
	Beef/Dairy Fat Cattle	900	1	500	444
	Beef/Dairy Replacement Cattle	900	1	500	444
	Mature Beef Cattle	1200	1	500	333
	Mature Dairy Cattle	1300	1.4	357	308
	Swine	Nursery Swine	25	0.1	5,000
Grower Swine		70	0.4	1,250	2,857
Wean-Finish Swine		135	0.4	1,250	1,481
Grow-Finish Swine		150	0.4	1,250	1,333
Breeding Replacement Swine		150	0.4	1,250	1,333
Gestation Swine		400	0.4	1,250	500
Lactation Swine with Piglets		450	0.4	1,250	444
Poultry		Brooder Turkey	2	0.018	27,778
	Finishing Turkey	14	0.018	27,778	14,286
	Breeding Turkey	14	0.018	27,778	14,286
	Broiler-Finishing Chicken	10	0.01	50,000	20,000
	Layer Chicken	10	0.01	50,000	20,000
	Sheep	Sheep or Lambs	75	0.1	5,000

Livestock producers with animal feeding operations that have an animal unit capacity greater than 500 animal units must be certified to apply manure and must have a DNR approved manure management plan

**Table 2. DNR Field Office Contact Information**

DNR Field Office	Location	Phone	Fax
Field Office 1	909 West Main, Suite 4 Manchester, IA 52057	(563) 927-2640	(563) 927-2075
Field Office 2	2300 15 <sup>th</sup> St. S.W. Mason City, IA 50401	(641) 424-4073	(641) 424-9342
Field Office 3	1900 N. Grand Ave. Spencer, IA 51301	(712) 262-4177	(712) 262-2901
Field Office 4	1401 Sunnyside Lane Atlantic, IA 50022	(712) 243-1934	(712) 243-6251
Field Office 5	401 SW 7 <sup>th</sup> St. Suite I Des Moines, IA 50309	(515) 725-0268	(515) 725-0218
Field Office 6	1004 W. Madison Washington, IA 52353	(319) 653-2135	(319) 653-2856

**Table 3: Required separation distances (in feet) for buildings or public use areas by type of manure and method of manure application**

Buildings or Public Use Areas	Dry Manure		Liquid Manure (except irrigated)		
	Surface Application		Direct Injection	Surface Application	
	Incorporated within 24 hours	Incorporated after 24 hrs. or not incorporated		Incorporated within 24 hrs.	Incorporated after 24 hrs. or not incorporated
Residence Business Church School Public use area	0	0	0	0	750 ft. <sup>1</sup>

1. a) This separation distance applies only to liquid manure from confinement feeding operations. It does not apply to manure from open feed lots or dry manure. The required 750-foot separation distance also does not apply if any of the following exist:
  - 1) manure is injected or incorporated within 24 hours,
  - 2) a written waiver is issued by owner of the building or public use area benefiting from the required separation distance,
  - 3) manure comes from a small animal feeding operation (SAFO), or
  - 4) manure is applied by low pressure spray irrigation equipment (a 250-foot separation distance applies—see Table 5).
- b) Measure the separation distance from the applied manure to the closest point of buildings; and to the facilities where people congregate (for public use areas).

**Table 4: Required separation distances (in feet) for designated areas by type of manure and method of manure application**

Designated Areas	Dry Manure		Liquid Manure (except irrigated)		
	Surface Application		Direct Injection	Surface Application	
	Incorporated on same date	Not incorporated		Incorporated on same date	Not incorporated
Sinkhole Abandoned well Cistern Drinking water well Designated wetland Water source	0	200 ft. <sup>2</sup> (50 ft. with buffer <sup>4</sup> )	0	0	200 ft. <sup>2</sup> (50 ft. with buffer <sup>4</sup> )
High quality water resource	0	800 ft. <sup>2,3</sup> (50 ft. with buffer <sup>4</sup> )	0	0	800 ft. <sup>2,3</sup> (50 ft. with buffer <sup>4</sup> )
Unplugged ag drainage well Ag drainage well surface inlet	0	200 <sup>5</sup>	0	0	200 <sup>5</sup>

2. The separation distance applies to both open feedlots and confinement feeding operations, regardless of size. The 200-foot or 800-foot separation distance does not apply if either of the following exist:
  - a) If manure is injected or incorporated on the same date as the manure was land applied, it can be applied up to the edge of the designated area, or
  - b) If a 50-foot buffer is established around a designated area, manure can be applied up to the edge of the buffer
3. C heck with the DNR if you are adjacent to a high quality water resource, because an 800-foot separation distance may apply pending a proposed rule change.
4. D o not apply manure in the vegetative buffer.
5. M anure shall not be applied within 200 feet of an unplugged ag drainage well or unplugged ag drainage well surface inlet, unless injected or incorporated on the same date.

**Table 5: Required separation distances (in feet) for land application of irrigated liquid manure**

Protected Areas	Irrigated Liquid Manure	
	Low Pressure (< 25 psi)	High Pressure (> 25 psi)
<b>Property Boundary Line</b>	100 ft. <sup>1</sup>	100 ft. <sup>1</sup>
<b>Buildings or Public Use Areas</b> Residence Business Church School Public use area	250 ft. <sup>2</sup>	750 ft. <sup>3</sup>
<b>Designated Areas</b> Sinkhole Abandoned well Designated wetlands Cistern Drinking water well Water source	200 ft. (50 ft. with buffer <sup>4</sup> )	200 ft. (50 ft. with buffer <sup>4</sup> )
<b>High quality water resource</b>	800 ft. <sup>5</sup>	800 ft. <sup>5</sup>
<b>Unplugged ag drainage well</b> <b>Ag drainage well surface inlet</b> <b>Agricultural drainage well area (watershed)</b>	No Irrigation Allowed <sup>6</sup>	No Irrigation Allowed <sup>6</sup>

1. a) Maintain at least 100 feet between the wetted perimeter (per manufacturer's specifications) and the property boundary line where irrigation is being used, and the actual wetted perimeter shall not exceed the property boundary line.  
b) If property includes a road right-of-way (ROW), a railroad ROW or an access easement, use the boundary of the ROW or easement as the property boundary line.
2. a) This separation distance applies to liquid manure applied by low pressure spray irrigation equipment as defined below.  
b) Measure the separation distance from the actual wetted perimeter of the manure to the closest point of buildings; and to the facilities where people congregate (for public use areas).
3. a) This separation distance applies to liquid manure from a confinement feeding operation. It does not apply to manure from open feed lots or dry manure. The required 750-foot separation distance does not apply if any of the following exist:
  - 1) manure is incorporated within 24 hours,
  - 2) a written waiver is issued by the owner of the building or public use area benefiting from the required separation distance,
  - 3) manure comes from a small animal feeding operation (SAFO), or
  - 4) manure is applied by low pressure spray irrigation (a 250-foot separation distance applies).
b) Measure the separation distance from the actual wetted perimeter of the manure to the closest point of buildings; and to the facilities where people congregate (for public use areas).
4. Do not apply manure in the vegetative buffer.
5. Check with the DNR if you are adjacent to a high quality water resource, because an 800-foot separation distance may apply pending a proposed rule change.
6. No manure can be applied by spray irrigation equipment within an ag drainage well area. An ag drainage well area includes all land where surface or subsurface water drain to the well directly or through a drainage system connected to the well.

## Summary of Key Points

- Chapter 65 of the Iowa Administrative Code contains regulations governing confined animal feeding operations and manure applicator certification. The DNR is the agency responsible for enforcing these regulations.
- Iowa law requires both commercial manure applicators and confinement site manure applicators to be certified to handle manure.
- A small animal feeding operation (SAFO) is defined as an animal feeding operation with 500 or less animal units.
- Confinement site manure applicator certification is valid up to 3 calendar years.
- Confinement site manure applicator certificates expire on December 31 of the third year of their certificate.
- Confinement site applicators have until March 1 in the year after their license expires to renew their certificates and avoid paying a late fee.
- Confinement site applicators can become initially certified by: taking and passing the exam, attending a 2 hour workshop, or by watching a 2 hour video, and submitting the applicator certification form and fee to the DNR.
- To maintain certification, confinement site applicators must take and pass the exam every three years or attend 2 hours of annual training each year of their 3-year certification.
- If a confinement site applicator misses 1 year of annual training during their 3 calendar-year certification, they will have to fulfill previous training requirements by testing (or training if the fail to pass the exam) prior to renewing their certification.
- All confinement site manure applicators must follow the requirements of their manure management plan. These requirements include: maintain application records, observe and implement separation distances for land application of manure and report releases to the DNR.
- Manure management plans are required of confinement feeding operations that have been built or expanded since May 31, 1985 and that have more than 500 a.u.
- Manure management plans are not required for open feedlots or for SAFOs.
- Manure management plans must be submitted on DNR forms.
- Effective February 13, 2002, new manure management plans need to be submitted to the DNR, the county board of supervisors where the confinement feeding operation is located.
- Beginning March 1, 2003, manure management plans will need to be submitted annually to the DNR, the county board of supervisors where the confinement is located, and to the county board of supervisors where the manure is applied.
- Application records must include: method of application, date(s) when manure from the confinement facility was applied or sold, location of field and number of acres where the manure was applied, and the manure application rate.
- Separation distances for land application of manure are required by law and must be maintained between the protected area and the area where manure is applied. See tables 3, 4, and 5 for details.
- Iowa law requires that manure spills or releases be reported to the DNR as soon as possible but not more than 6 hours after the onset or discovery of the spill or release.
- A release is define as “ an actual, imminent or probable discharge or manure from an animal feeding operation structure to surface water, groundwater, drainage tile line or intake, or to a designated area resulting from storing, handling, transporting or land-applying manure.”