

1 **Minnesota Pollution Control Agency**

2 **Adopted Permanent Rules Relating to Animal Feedlots and Storage, Transportation,**  
3 **and Utilization of Animal Manure**

4 **7001.0020 SCOPE.**

5 Except as otherwise specifically provided, parts 7001.0010 to 7001.0210 apply to items  
6 A to J.

7 [For text of items A to E, see M.R.]

8 F. An agency permit required for the construction or operation of an animal  
9 feedlot, or manure storage area, ~~or pasture,~~ or for the correction of a pollution hazard.  
10 However, parts 7001.0040, 7001.0050, 7001.0100, subparts 4 and 5, and 7001.0110 do not  
11 apply to animal feedlot interim and construction short-form permits issued under  
12 chapter 7020.

13 [For text of items G to J, see M.R.]

14 **7002.0210 SCOPE.**

15 Parts 7002.0210 to 7002.0310 apply to all persons required to obtain a permit from the  
16 Minnesota Pollution Control Agency as described in part 7001.0020, items C to F.

17 **7002.0240 PAYMENT OF FEES.**

18 A person submitting a fee shall make the fee payable to the "Minnesota Pollution  
19 Control Agency" and submit it to the director of Minnesota Pollution Control Agency  
20 Fiscal Services.

21 **7002.0250 APPLICATION FEE.**

22 A person who applies for a permit to construct, install, modify, or operate a  
23 facility, or applies for a permit modification as described in part 7001.0190, excluding  
24 interim and construction short-form permits issued under chapter 7020, shall submit  
25 with the application the appropriate application fee. Failure to submit the fee renders

1 the application incomplete and the agency shall suspend processing of the application  
2 until the fee is received. Application fees are nonrefundable.

3 **7002.0270 ANNUAL FEE.**

4 All persons required to obtain a permit listed in part 7002.0310, subparts 1, 2, and 3,  
5 shall pay an annual fee for processing of the permit and enforcement of applicable  
6 statutes and rules as described in items A to F. The annual fee shall be paid within 30  
7 days of receipt of an invoice from the agency.

8 A. A permittee holding a new or reissued permit after February 3, 1992, is subject  
9 to the fees established in part 7002.0310. A permittee holding an unexpired permit on  
10 February 3, 1992, shall continue to comply with the payment schedules in part 7002.0305  
11 until the permit expires.

12 B. A permittee applying for a permit modification according to part 7001.0190,  
13 subpart 1, shall pay an additional fee equal to 50 percent of the permittee's annual fee as  
14 established in part 7002.0310.

15 C. A permittee holding an unexpired permit on February 3, 1992, that applies for  
16 the permit modification according to part 7001.0190, subpart 1, shall pay a modification  
17 fee as established in part 7002.0305.

18 D. An applicant for reissuance of an expired permit under part 7001.0160 must pay  
19 fees set in part 7002.0310.

20 E. A permittee or applicant for an individual storm water permit must pay fees set  
21 in part 7002.0310, subpart 2, item B, under "other nonmunicipal."

22 F. A permittee or applicant for permits issued under chapter 7020 must pay fees as  
23 follows:

24 (1) NPDES permits, fees set in part 7002.0310, subpart 2, item B, under "other  
25 nonmunicipal";

1 (2) SDS permits that regulate animal feedlots capable of holding 1,000 or more  
2 animal units or manure storage areas capable of holding the manure produced by 1,000  
3 or more animal units, the same fees required under subitem (1) after July 2, 2001;

4 (3) interim permits, no fees; and

5 (4) construction short-form permits, no fees.

6 **7002.0280 NOTIFICATION OF ERROR.**

7 A person who thinks that an annual fee for a specific facility is in error shall provide  
8 written notice of the error to the director of the Minnesota Pollution Control Agency  
9 Fiscal Services, along with the assessed fee. If the director of the Minnesota Pollution  
10 Control Agency Fiscal Services finds, upon reviewing the data, that the assessed fee was  
11 in error, the overpayment shall be refunded to the permittee or credited to the  
12 permittee's account.

13 **GENERALLY**

14 **7020.0200 SCOPE.**

15 This chapter governs the storage, transportation, disposal, and utilization of animal  
16 manure and process wastewaters and the application for and issuance of permits for  
17 construction and operation of animal manure management and disposal or utilization  
18 systems for the protection of the environment. This chapter does not address wastes  
19 from fish. This chapter does not preempt the adoption or enforcement of zoning  
20 ordinances or plans by counties, townships, or cities ~~to address manure and process~~  
21 ~~wastewaters from animal feedlots, manure storage areas, and pastures.~~

22 **7020.0205 INCORPORATION BY REFERENCE.**

23 For the purposes of parts 7001.0020 and 7020.0200 to 7020.2225, the documents in  
24 items A to ~~N~~ L are incorporated by reference. These documents are not subject to  
25 frequent change.

26 A. Annual Book of American Society for Testing and Materials (ASTM), Part 4,  
7020.0205

1 ASTM D 1557, Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate  
2 Mixtures Using 10-lb (4.54-kg) Rammer and 18-in. (457-mm) Drop. 1978 Edition. This  
3 publication is available through the Minitex interlibrary loan system.

4 B. Annual Book of American Society for Testing and Materials (ASTM), Part 4,  
5 ASTM D 4318, Test Method for Liquid Limit, and Plasticity Index of Soils. 1984 Edition.  
6 This publication is available through the Minitex interlibrary loan system.

7 C. Annual Book of American Society for Testing and Materials (ASTM), Part 4,  
8 ASTM D 422, Method for Particle-Size Analysis of Soils. 1972 Edition. This publication is  
9 available through the Minitex interlibrary loan system.

10 D. Annual Book of American Society for Testing and Materials (ASTM), Part 4,  
11 ASTM D 698, Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate  
12 Mixtures Using 5.5-lb (2.49-kg) Rammer and 12-in. (304.8-mm) Drop. 1978 Edition. This  
13 publication is available through the Minitex interlibrary loan system.

14 E. Code of Federal Regulations, title 40, part 412, Feedlots Point Source Category.  
15 This publication is available through the Minitex interlibrary loan system.

16 F. Code of Federal Regulations, title 40, section 122.23, Concentrated Animal  
17 Feeding Operations. This publication is available through the Minitex interlibrary loan  
18 system.

19 G. Protected Waters and Wetlands Maps, 1999. Minnesota Department of Natural  
20 Resources, Division of Waters. These maps are available through the Minnesota  
21 Bookstore, 117 University Ave., St. Paul, MN 55155. These maps are available for  
22 viewing at the County Auditor's offices, County Soil and Water Conservation District  
23 offices, Watershed District offices, Minnesota Department of Natural Resources offices,  
24 and through the Minitex interlibrary loan system at the Minnesota Department of  
25 Natural Resources Internet site at the following address:  
26 <http://www.dnr.state.mn.us/waters/wetlands/pwi/index.html>.

1 H. United States Geological Survey Quadrangle Maps, 7.5- and 15-minute maps,  
2 United States Department of the Interior Geological Survey, 1999. These maps are  
3 available through the Minitex interlibrary loan system from the Minnesota Pollution  
4 Control Agency library. They are available for viewing at the Minnesota Department of  
5 Administration and county offices, and may be ordered from the United States  
6 Geological Survey Internet site at the following address:  
7 <http://mappings.usgs.gov/mac/findmaps.html>.

8 I. Minnesota Natural Resources Conservation Service Practice Standard, Waste  
9 Storage Pond (Code No. 425), November 1991, or Waste Storage Facility (Code No. 313),  
10 January 1998. This publication is available through the Minitex system.

11 J. Feedlot Inventory Guidebook, Minnesota Board of Water and Soil Resources,  
12 June 1991. This publication is available through the Minitex interlibrary loan system.

13 ~~K. United States Department of Agriculture, Natural Resource Conservation~~  
14 ~~Service, Natural Range and Pasture Handbook, Chapter 5, Management of Grazing~~  
15 ~~Lands, Part 2(i), September 1997. Annual Book of America Society for Testing Materials~~  
16 ~~(ASTM), part 4, ASTM D 2922, Test Method for Density of Soil and Soil-Aggregate in~~  
17 ~~Place by Nuclear Methods (Shallow Depth). 1996 Edition. This publication is available~~  
18 ~~through the Minitex interlibrary loan system.~~

19 L. An Evaluation System to Rate Feedlot Pollution Potential, United States  
20 Department of Agriculture, Agricultural Research Service, April 1982. This publication  
21 is available through the Minitex interlibrary loan system.

22 ~~M. Minnesota Natural Resources Conservation Service, Conservation Practice~~  
23 ~~Standard, Prescribed Grazing, Code No. 528A, July 1998. This publication is available~~  
24 ~~through the Minitex interlibrary loan system.~~

25 ~~N. Minnesota Natural Resources Conservation Service, Conservation Practice~~  
26 ~~Standard, Heavy Use Area Protection, Code No. 561, Second Draft, November 1991.~~  
27 ~~This publication is available through the Minitex interlibrary loan system.~~

1       **7020.0250 SUBMITTALS AND RECORDS.**

2           Subpart 1. **Accuracy of submittals.** An owner who fails to submit relevant facts or  
3 who has submitted incorrect information in a submittal shall, upon becoming aware of  
4 the failure or incorrect information, promptly submit to the commissioner or county  
5 feedlot pollution control officer the supplementary facts or corrected information.

6           Subp. 2. **Record retention, access to records, and inspections.**

7           A. A person required to keep records under this chapter shall maintain at the  
8 animal feedlot or manure storage area, or at the person's business address, for three  
9 years from the date the record was made, unless otherwise specified, all information  
10 required to be recorded under applicable state and federal rules. The person shall make  
11 these records available for examination and copying upon request of the commissioner,  
12 county feedlot pollution control officer, or agent of the commissioner and shall, upon  
13 request, submit these records to the commissioner, county feedlot pollution control  
14 officer, or agent of the commissioner within 30 days.

15           B. A person storing, transporting, disposing, or utilizing animal manure or process  
16 wastewaters shall provide the commissioner, county feedlot pollution control officer, or  
17 agent of the commissioner access to the animal feedlot, the animal holding area, the  
18 manure storage area, ~~pasture~~, or other area areas where manure or process wastewaters  
19 are stored, in transport, or utilized, including allowing the collection of samples, and  
20 records to the extent provided under Minnesota Statutes, section 115.04, or other law,  
21 upon presentation of credentials.

22           C. Nothing in this subpart limits the commissioner's or agency's authority under  
23 Minnesota Statutes, section 115.04, or other law.

24       **7020.0300 DEFINITIONS.**

25           Subpart 1. **Scope.** All terms employed in this chapter for which definitions are given  
26 in Minnesota Statutes, sections 115.01 and 116.06, have the ~~meaning~~ meanings given in

1 those sections. For the purposes of this chapter, the terms specified in this part have the  
2 meanings ascribed to them.

3 Subp. 1a. **Aboveground manure storage area.** "Aboveground manure storage area"  
4 means a manure storage area for which all portions of the liner are located at or above  
5 the elevation of the natural ground level.

6 [For text of subps 2 and 3, see M.R.]

7 Subp. 4. **Animal manure or manure.** "Animal manure" or "manure" means poultry,  
8 livestock, or other animal excreta or a mixture of excreta with feed, bedding,  
9 precipitation, or other materials.

10 Subp. 5. **Animal unit.** "Animal unit" means a unit of measure used to compare  
11 differences in the production of animal manure that employs as a standard the amount  
12 of manure produced on a regular basis by a slaughter steer or heifer for any an animal  
13 feedlot; or a manure storage area, or pasture calculated by multiplying the number of  
14 animals of each type in items A to ~~f~~ I by the respective multiplication factor and  
15 summing the resulting values for the total number of animal units. For purposes of  
16 ~~parts 7020.0200 to 7020.2225~~ this chapter, the following multiplication factors shall  
17 apply:

18 A. ~~one mature dairy cattle;~~

19 (1) one mature cow (whether milked or dry);

20 ~~(1) (a)~~ (a) over 1,000 pounds, 1.4 animal unit; or

21 ~~(2) (b)~~ (b) under 1,000 pounds, 1.0 animal unit;

22 (2) one heifer, 0.7 animal unit; and

23 (3) one calf, 0.2 animal unit;

24 B. ~~one slaughter steer, feeder cattle, or heifer, 1.0 animal unit;~~ beef cattle:

25 (1) one slaughter steer or stock cow, 1.0 animal unit;

- 1            (2) one feeder cattle (stocker or backgrounding) or heifer, 0.7 animal unit;
- 2            (3) one cow and calf pair, 1.2 animal unit; and
- 3            (4) one calf, 0.2 animal unit;
- 4            C. one head of swine:
- 5            (1) over ~~55~~ 300 pounds, 0.4 animal unit; ~~or~~
- 6            (2) ~~under 55 pounds, 0.05, animal unit~~ between 55 pounds and 300 pounds, 0.3
- 7            animal unit; and
- 8            (3) under 55 pounds, 0.05 animal unit;
- 9            D. one horse, ~~2-0~~ 1.0 animal ~~units~~ unit;
- 10           E. one sheep or lamb, 0.1 animal unit;
- 11           F. chickens:
- 12           (1) one laying hen or broiler, if the facility has a liquid manure system, 0.033
- 13           animal unit; or
- 14           (2) ~~except as required in subitem (1):~~
- 15           ~~(a) one chicken over three pounds, 0.01 animal unit; or~~
- 16           ~~(b) one chicken under three pounds, 0.003 animal unit;~~ one chicken if the
- 17           facility has a dry manure system:
- 18           (a) over five pounds, 0.005 animal unit; or
- 19           (b) under five pounds, 0.003 animal unit;
- 20           G. one turkey:
- 21           (1) over five pounds, 0.018 animal unit; or
- 22           (2) under five pounds, 0.005 animal unit;
- 23           H. one duck, ~~0.2~~ 0.01 animal unit; and



1 I. for animals not listed in items A to H, the number of animal units shall be  
2 defined as is the average weight of the animal in pounds divided by 1,000 pounds; and,

3 ~~J. when a person accepts manure produced by animals not owned or managed by~~  
4 ~~that person, the number of animal units for the manure must be calculated by summing~~  
5 ~~the number of animal units calculated under subitems (1) and (2).~~

6 (1) ~~When the total animal units, calculated according to items A to I, are known~~  
7 ~~for all manure storage areas, animal feedlots, and pastures where the manure was~~  
8 ~~produced, the animal units are the sum of the animal units that produced the manure.~~

9 (2) ~~When the animal units and the animal type are not known for all manure~~  
10 ~~storage areas, animal feedlots, and pastures where the manure was produced, animal~~  
11 ~~units are calculated by dividing the quantity of manure handled annually in pounds by~~  
12 ~~4,000.~~

13 Subp. 5a. **Concentrated animal feeding operation or CAFO.** "Concentrated animal  
14 feeding operation" or "CAFO" means animal feedlots and manure storage areas meeting  
15 the definition of a CAFO in Code of Federal Regulations, title 40, section 122.23, and  
16 clarified under Minnesota Statutes, section 116.07, subdivision 7c.

17 Subp. 6. **Certificate of compliance.** "Certificate of compliance" means a letter from the  
18 commissioner or the county feedlot pollution control officer to the owner of an animal  
19 feedlot or manure storage area stating that the feedlot or manure storage area meets  
20 agency requirements.

21 Subp. 6a. **Commencement of construction.** "Commencement of construction" means  
22 to begin or cause to begin, as part of a continuous program, the placement, assembly, or  
23 installation of facilities or equipment; or to conduct significant site preparation work,  
24 including clearing, excavation, or removal of existing buildings, structures, or facilities,  
25 necessary for the placement, assembly, or installation of facilities or equipment at:

26 A. a new or expanded animal feedlot; or

1 B. a new, modified, or expanded manure storage area.

2 Subp. 7. [See repealer.]

3 [For text of subp 7a, see M.R.]

4 Subp. 7b. **Composite liner.** "Composite liner" means a manure storage area liner  
5 which is designed to achieve a theoretical seepage rate of 1/560 inch per day or less and  
6 consists of a geomembrane liner, geosynthetic clay liner, or other comparable material,  
7 laid over a constructed cohesive soil liner having a thickness of two feet or greater.

8 Subp. 7c. **Compost.** "Compost" means a humus-like product derived from the  
9 controlled microbial degradation of organic material. Only manure that has completed  
10 the composting processes described in part 7020.2150, subpart 2, is compost.

11 Subp. 8. **Corrective or protective measure.** "Corrective or protective measure" means  
12 a practice, structure, condition, or combination thereof which prevents or reduces the  
13 discharge of pollutants from an animal feedlot, or manure storage area, ~~or pasture~~ to a  
14 level in conformity with agency rules.

15 Subp. 8a. **Construction short-form permit.** "Construction short-form permit" means a  
16 permit issued for an animal feedlot or manure storage area according to parts 7020.0505  
17 and 7020.0535.

18 Subp. 9. **County feedlot pollution control officer.** "County feedlot pollution control  
19 officer" means an employee or officer of a delegated county who is knowledgeable in  
20 agriculture and who is designated by the county board to perform the duties under part  
21 7020.1600.

22 Subp. 9a. **Delegated county.** "Delegated county" means a county that has applied for  
23 and received authorization pursuant to part 7020.1600, subpart 3, item C, to implement  
24 an animal feedlot program.

25 Subp. 9b. **Design engineer.** "Design engineer" means a professional engineer licensed  
26 in the state of Minnesota or a Natural Resources Conservation Service (NRCS) staff  
27 person having NRCS approval authority for the project.

1 Subp. 9c. **Discharge.** "Discharge" means the addition of a pollutant to waters of the  
2 state, including a release of animal manure, manure-contaminated runoff or process  
3 wastewater from an animal feedlot, a manure storage area, or ~~pasture~~ an animal manure  
4 land application site by leaking, pumping, pouring, emitting, emptying, dumping,  
5 escaping, seeping, leaching, or any other means. Discharge includes both point source  
6 and nonpoint source discharges. ~~Seepage from a manure storage area that has been~~  
7 ~~permitted or demonstrated to be properly designed, constructed, and operated is not a~~  
8 ~~discharge.~~

9 [For text of subp 11, see M.R.]

10 Subp. 11a. **Expansion or expanded.** "Expansion" or "expanded" means construction  
11 or any activity that has resulted or may result in an increase in the number of animal  
12 units at that an animal feedlot is capable of holding or an increase in storage capacity of  
13 a manure storage area ~~that is not located at an animal feedlot.~~

14 [For text of subp 12, see M.R.]

15 Subp. 12a. **Flow distance.** "Flow distance" means the distance runoff travels from the  
16 source of the runoff to waters of the state.

17 Subp. 13. **Interim permit.** "Interim permit" means a permit issued by the  
18 commissioner or the county feedlot pollution control officer in accordance with parts  
19 7020.0505 and 7020.0535.

20 Subp. 13a. **Intermittent streams.** "Intermittent streams" means all water courses  
21 identified as intermittent streams on United States Geological Survey quadrangle maps.

22 Subp. 13b. **Manure-contaminated runoff.** "Manure-contaminated runoff" means a  
23 liquid that has come into contact with ~~animals or~~ animal manure and drains over land  
24 from any animal feedlot, manure storage area, ~~pasture,~~ or animal manure land  
25 application site.

26 Subp. 14. **Manure storage area.** "Manure storage area" means an area where animal

1 manure, or process wastewaters, or process-generated wastewaters are stored or  
2 processed. Short-term and permanent stockpile sites and composting sites are manure  
3 storage areas. Animal manure packs or mounding within the animal holding area of an  
4 animal feedlot that are managed according to part 7020.2000, subpart 3, are not manure  
5 storage areas.

6 Subp. 15. **New animal feedlot.** "New animal feedlot" means an animal feedlot or  
7 manure storage area:

8 A. constructed, established, or operated at a site where no animal feedlot or  
9 manure storage area existed previously; or

10 B. that existed previously and has been unused for ~~three~~ five years or more.

11 Subp. 15a. New technology. "New technology" means an alternative construction or  
12 operating method to those provided in parts 7020.2000 to 7020.2225. New technology  
13 construction or operating methods must achieve equivalent environmental results to the  
14 requirements in parts 7020.2000 to 7020.2225.

15 Subp. 16. **National Pollutant Discharge Elimination System permit or NPDES**  
16 **permit.** "National Pollutant Discharge Elimination System permit" or "NPDES permit"  
17 means a permit issued by the agency for the purpose of regulating the discharge of  
18 pollutants from CAFOs point sources including concentrated animal feeding operations  
19 (CAFOs).

20 Subp. 17. **Owner.** "Owner" means all persons having possession, control, or title to an  
21 animal feedlot, or manure storage area, or pasture.

22 Subp. 18. **Pastures.** "Pastures" means areas where grass or other growing plants are  
23 used for grazing and where the concentration of animals is such that a vegetation cover  
24 of perennial grasses or forages is maintained during the growing season and except in  
25 the immediate vicinity of temporary supplemental feeding or watering devices are  
26 located outside special protection areas.

1 Subp. 18a. **Permanent stockpiling site.** "Permanent stockpiling site" means a manure  
2 storage area where manure is stored or processed that does not meet the requirements  
3 of part 7020.2125, subpart 2.

4 Subp. 19. **Permit.** "Permit" means a document issued by the agency or county animal  
5 feedlot pollution control officer which may contain requirements, conditions, or  
6 schedules for achieving compliance with the discharge standards; and requirements for  
7 management of animal manure construction; or operation of animal holding areas; or  
8 manure storage areas; and pastures. Permits issued under this chapter are NPDES, state  
9 disposal system, interim, and construction short-form permits.

10 Subp. 19a. **Pollution hazard.** "Pollution hazard" means an animal feedlot; or manure  
11 storage area, ~~or pasture~~ that:

12 A. does not comply with the requirements of parts 7020.2000 to 7020.2225 and has  
13 not been issued an SDS or NPDES permit establishing an alternative construction or  
14 operating method; or

15 B. presents a potential or immediate source of pollution to waters of the state as  
16 determined by inspection by a county feedlot pollution control officer or agency staff  
17 taking into consideration the following:

18 (1) the size of the animal feedlot or manure storage area;

19 (2) the amount of pollutants reaching or that may reach waters of the state;

20 (3) the location of the animal feedlot or manure storage area relative to waters of  
21 the state;

22 (4) the means of conveyance of animal manure or process wastewater into  
23 waters of the state; and

24 (5) the slope, vegetation, rainfall, and other factors affecting the likelihood or  
25 frequency of discharge of animal manure or process wastewater into waters of the state.



1 B. intermittent streams and ditches identified on United States Geological Survey  
2 quadrangle maps, excluding drainage ditches with berms and segments of intermittent  
3 streams which are grassed waterways.

4 Subp. 24. **State disposal system permit or SDS permit.** "State disposal system  
5 permit" or "SDS permit" means a state permit for ~~a disposal system~~ that may be  
6 processed in accordance with parts 7001.0040; 7001.0050; 7001.0100, subparts 4 and 5;  
7 and 7001.0110.

8 Subp. 25. **Unpermitted or noncertified liquid manure storage area.** "Unpermitted or  
9 noncertified liquid manure storage area" means a liquid manure storage area that is in  
10 operation and:

11 A. the owner does not have an agency or delegated county permit or certificate of  
12 compliance for the manure storage area and was required to apply for and obtain a  
13 permit or certificate of compliance prior to the construction or operation of the manure  
14 storage area; or

15 B. the owner has not complied with the preoperational requirements of part  
16 7020.2100 and or permit requirements, if applicable.

17 Subp. 26. **Waters of the state.** "Waters of the state" means all streams, lakes, ponds,  
18 marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation  
19 systems, drainage systems, and all other bodies or accumulations of water, surface or  
20 underground, natural or artificial, public or private, which are contained within, flow  
21 through, or border upon the state or any portions of the state.

## 22 REGISTRATION PROGRAM

### 23 7020.0350 REGISTRATION REQUIREMENTS FOR ANIMAL FEEDLOTS, AND 24 MANURE STORAGE AREAS, ~~AND PASTURES.~~

25 Subpart 1. **Registration data.** After ~~October 1, 2001~~ January 1, 2002, the agency and all  
26 delegated counties shall maintain registration data for animal feedlots, and manure

1 storage areas, ~~and pastures~~. The registration data must include the information required  
2 in a Level II feedlot inventory as described in the Feedlot Inventory Guidebook and  
3 must contain the following:

- 4 A. date the registration form was completed;
- 5 B. name and address of all owners of the animal feedlot, manure storage area, or  
6 pasture;
- 7 C. facility location according to township, county, section, and quarter section;
- 8 D. permit or certificate number for owners that who have been issued an agency or  
9 delegated county feedlot permit or certificate of compliance;
- 10 E. types of animal holding areas including pastures, confinement barns, and open  
11 lots;
- 12 F. number and types of animals in the areas listed in item E;
- 13 G. identity of surface waters within 1,000 feet of the facility;
- 14 H. presence and type of manure storage areas;
- 15 I. shortest distance from an animal holding area or manure storage area to a well;  
16 and
- 17 J. the name of the person that completed the registration form; ~~and~~
- 18 ~~K. additional information needed to evaluate high priority environmental issues~~  
19 ~~related to animal feedlots, manure storage areas, and pastures.~~

20 **Subp. 2. Owners required to register.**

21 A. Owners of the following facilities are required to register with the commissioner  
22 or delegated county, except as provided in item B:

23 ~~A. (1) an animal feedlot capable of holding 50 or more animal units, or a manure  
24 ~~storage area, or pasture with capable of holding the manure produced by 50 or more~~  
25 ~~animal units; and~~~~



1           B. (2) an animal feedlot capable of holding ten or more and fewer than 50 animal  
2 units, or a manure storage area capable of holding the manure produced by, or pasture  
3 with ten or more and fewer than 50 animal units, that is located within shoreland.

4           B. An owner of a livestock facility located on county fairgrounds is not required to  
5 register, in accordance with Laws 2000, chapter 435, section 10, paragraph (c), clause (6).

6           Subp. 3. **Initial registration schedule and requirements.** Owners required to register  
7 under subpart 2 shall comply with at least one of the following by ~~October 1, 2001~~  
8 January 1, 2002:

9           A. the owner shall submit the information in subpart 1, on a form provided by the  
10 commissioner, to the commissioner or delegated county feedlot pollution control officer;

11           B. the owner shall submit a permit application to the commissioner or delegated  
12 county after the effective date of this part; or

13           C. the owner shall be listed on a feedlot inventory that:

14           (1) is a Level II or Level III inventory as described in the Feedlot Inventory  
15 Guidebook that contains the information under subpart 1, items A and E to J;

16           (2) is current as of October 1, 1997;

17           (3) contains the information required under subpart 1, items B to D; and

18           (4) has been submitted to the commissioner.

19           Subp. 4. **Registration requirements after ~~October 1, 2001~~ January 1, 2002.** Owners of  
20 animal feedlots; and manure storage areas, and pastures who are required to register  
21 under subpart 2 shall comply with items A and B, as applicable.

22           A. Owners of facilities not in operation prior to ~~October 1, 2001~~ January 1, 2002,  
23 shall register with the commissioner or delegated county prior to or upon  
24 commencement of operation. Owners shall comply with at least one of the following:

25           (1) the owner shall submit the information in subpart 1, on a form provided by  
26 the commissioner; or

1 (2) the owner shall submit a permit application to the commissioner or  
2 delegated county.

3 B. Owners shall update their registrations prior to the registration update  
4 deadlines which shall be established by adding four-year increments to the initial  
5 registration deadline of ~~October 1, 2001~~ January 1, 2002. Owners shall register at least  
6 once during each of the four-year registration update intervals by meeting one of the  
7 following:

8 (1) the owner shall comply with item A, subitem (1) or (2); or

9 (2) the owner shall be listed on a feedlot inventory that:

10 (a) is a Level II or Level III inventory as described in the Feedlot Inventory  
11 Guidebook that contains the information under subpart 1, items A and E to J;

12 (b) has been updated within the applicable four-year registration interval;

13 (c) contains the information required under subpart 1, items B to D and K;

14 and

15 (d) in its updated form has been submitted to the commissioner, including  
16 the information in unit (c).

17 Subp. 5. ~~Penalties for failure to register~~ Notification. ~~Owners of animal feedlots,~~  
18 ~~manure storage areas, and pastures who do not register in accordance with subparts 1 to~~  
19 ~~4 are subject to a penalty. The agency or delegated county shall:~~

20 A. notify owners at least 90 days prior to the scheduled registration update  
21 deadlines about reregistration; and

22 B. send a receipt of registration to owners within 30 days of receipt of the  
23 registration by the agency or the delegated county.

## 24 PERMIT PROGRAM

25 **7020.0400 PERMITS AND CERTIFICATES ISSUED PRIOR TO EFFECTIVE DATE**  
26 **OF THIS PART.**

7020.0400

1 Subpart 1. **SW-A permits.** All owners with SW-A permits shall comply with the  
2 permitting requirements in parts 7020.0400 to 7020.0535. Upon application for a permit  
3 under parts 7020.0405 to 7020.0535, the SW-A permit must be reconsidered pursuant to  
4 this chapter and chapter 7001. Any SW-A permit terms and conditions that are  
5 inconsistent with the requirements of parts 7020.2000 to 7020.2225 are superseded as of  
6 the effective date of this part.

7 Subp. 2. **Certificates of compliance.** All owners with certificates of compliance shall  
8 comply with the permitting requirements in parts 7020.0400 to 7020.0535.

9 Subp. 3. **Interim A and interim B permits.** An owner with an Interim A or Interim B  
10 permit that has not expired on the effective date of this part shall comply with items A  
11 and B.

12 A. If the requirements for which an Interim A permit was issued are not complete  
13 on the effective date of this part, the owner shall apply, prior to the expiration date of  
14 the Interim A permit, for a construction short-form, SDS, or NPDES permit as required  
15 under part 7020.0405.

16 B. If the requirements for which an Interim B permit was issued are not complete  
17 on the expiration date of the Interim B permit, the owner shall comply with part  
18 7020.0535, subpart 5, except that the owner shall complete the notification requirement  
19 prior to the expiration date of the Interim B permit.

20 Subp. 4. **NPDES and SDS permits.** NPDES and SDS permits issued prior to the  
21 effective date of this part remain in effect to the extent provided by the issued permit  
22 terms and conditions.

### 23 **7020.0405 PERMIT REQUIREMENTS.**

24 Subpart 1. **Permit required.** Four types of permits are issued under this chapter and  
25 chapter 7001: interim permits, construction short-form permits, SDS permits, and  
26 NPDES permits. The owner shall apply for a permit as follows:

1           A. an NPDES permit for the construction and operation of an animal feedlot or  
2 ~~manure storage area~~ that meets the criteria for CAFO;

3           B. unless required to apply for a permit under item A, an SDS permit under the  
4 following conditions:

5           (1) the construction and operation of an animal feedlot or manure storage area  
6 that has been demonstrated not to meet the criteria for CAFO and is capable of holding  
7 1,000 or more animal units or the manure produced by 1,000 or more animal units;

8           (2) the facility does not comply with all applicable requirements of parts  
9 7020.2000 to 7020.2225 and the pollution hazard cannot be, or has not been, corrected  
10 under the conditions in part 7020.0535 applicable to interim permits;

11           (3) the owner is proposing ~~an alternative construction or operating method that~~  
12 ~~achieves equivalent environmental results to those requirements in parts 7020.2000 to~~  
13 7020.2225 to construct or operate a new technology. An SDS permit is required for  
14 alternative new technology operational methods while these operational methods are  
15 employed; or

16           (4) the facility is one for which conditions or requirements other than those in  
17 parts 7020.2000 to 7020.2225 were assumed:

18           (a) as a mitigation measure in an environmental impact statement; or

19           (b) in obtaining a negative declaration in an environmental assessment  
20 worksheet;

21           C. unless required to obtain a permit under items A and B, an interim permit for:

22           (1) facilities identified as a pollution hazard; or

23           (2) an animal feedlot or a manure storage area with a capacity of 300 or more  
24 animal units prior to applying manure or process wastewater:

25           (a) on land where the soil phosphorus test levels exceed the levels in part  
26 7020.2225, subpart 3, item C;

1           (b) on land in special protection areas with slopes exceeding six percent; or

2           (c) in a drinking water supply management area where the aquifer is

3           designated vulnerable under chapter 4720; or

4           D. unless required to obtain a permit under items A to C, a construction short-form  
5           permit for an animal feedlot or manure storage area proposing to construct or expand to  
6           a capacity of 300 animal units or more, or the manure produced by 300 animal units or  
7           more. However, if a facility is determined to be a pollution hazard and the owner is  
8           proposing to expand to a capacity of 300 animal units or more, or the manure produced  
9           by 300 animal units or more, the owner shall apply for an interim permit under item C.

10          Subp. 2. **Expansion and stocking limitations.** Prior to expansion, an owner required  
11          to apply for a construction or operating permit under subpart 1 shall have obtained the  
12          permit, or permit modification, as applicable. An owner issued an interim permit that  
13          authorizes construction for an expansion shall not stock the expansion prior to the  
14          fulfillment of all permit conditions related to the correction of the pollution hazard for  
15          which the interim permit was issued.

16          Subp. 3. **No permit required.** The owner of an animal feedlot or manure storage area  
17          is not required to apply for a permit for:

18           A. a feedlot or manure storage area that meets the requirements of part 7020.2003,  
19           subparts 4 to 6;

20           ~~B. a pasture that has not been identified as a pollution hazard and complies with~~  
21           ~~the applicable requirements of parts 7020.2000 to 7020.2225; or~~

22           ~~C. a short-term stockpile or compost site if the owner is not an owner of an animal~~  
23           ~~feedlot or manure storage area other than a short-term stockpile or composting site;~~

24           C. a livestock facility located on county fairgrounds; or

25           D. a change in an existing facility that consists solely of a change in ownership of  
26           the building, grounds, or feedlot.

1       Subp. 4. **Change of ownership.** Prior to the change in the ownership or control of an  
2 animal feedlot or manure storage area issued a permit under this chapter, the new  
3 owner shall submit to the commissioner or county feedlot pollution control officer the  
4 information required in item A or B, as applicable. If the commissioner or county feedlot  
5 pollution control officer determines that the new owner meets the requirements for  
6 obtaining the permit, then the commissioner or the county feedlot pollution control  
7 officer shall issue the permit to the new owner. The new owner shall submit:

8           A. a request for permit modification according to part 7001.0190 for facilities  
9 covered under an SDS or NPDES permit; or

10          B. a change of ownership form provided by the commissioner.

#### 11       **7020.0505 PERMIT APPLICATIONS AND PROCESSING PROCEDURES.**

12       Subpart 1. **Submittals.** Permit applications must be submitted according to items A  
13 and B. An application is complete when all applicable information in subpart 4 and  
14 application fees under parts 7002.0250 and 7002.0310 have been received by the  
15 commissioner or the county feedlot pollution control officer, as appropriate. Incomplete  
16 permit applications must not be processed by the commissioner or delegated county  
17 feedlot pollution control officer.

18           A. NPDES and SDS permit applications must be submitted to the agency in  
19 accordance with this part and chapter 7001, with a copy submitted to the delegated  
20 county.

21           B. Interim permit and construction short-form permit applications must be  
22 submitted to the agency or delegated county in accordance with this part and part  
23 7020.0535.

24       Subp. 2. **Permit application submittal schedule.** An owner of an animal feedlot, or a  
25 manure storage area, ~~or pasture~~ required to apply for a permit under part 7020.0405,  
26 subpart 1, shall apply in accordance with the following schedule:

1 A. the following facilities that are in existence on or before the effective date of this  
2 part must submit a permit application by June 1, ~~2000~~ 2001:

3 (1) a CAFO; and

4 (2) an animal feedlot ~~or~~ capable of holding 1,000 animal units or more or a  
5 manure storage area capable of holding the manure produced by 1,000 animal units or  
6 more for which the owner has demonstrated that the facility does not meet the CAFO  
7 criteria;

8 B. a CAFO as determined through the case-by-case determination process under  
9 Code of Federal Regulations, title 40, section 122.23(c), shall submit a permit application  
10 by the submittal deadline established by the commissioner's written request. The owner  
11 has at least 30 days to submit the permit application;

12 C. an animal feedlot; or a manure storage area,~~or pasture,~~ that is new or expands  
13 after the effective date of this part and required to apply for an SDS or NPDES permit,  
14 shall submit a permit application at least 180 days prior to the planned date of  
15 commencement of construction or expansion;

16 D. an animal feedlot; or a manure storage area,~~or pasture~~ that is new or expanding  
17 after the effective date of this part, and is required to apply for a construction short-form  
18 permit, shall submit a permit application at least 90 days prior to the planned date of  
19 commencement of construction or expansion; and

20 E. a facility determined to be a pollution hazard shall submit a permit application  
21 by the submittal deadline established by the commissioner or the county feedlot  
22 pollution control officer's written request. The owner has at least 15 days to submit the  
23 permit application.

24 Subp. 3. **Permit application format.** A permit application for an NPDES, SDS,  
25 interim, or construction short-form permit must be on a form provided by the  
26 commissioner or the county feedlot pollution control officer.

1       **Subp. 4. Content of permit application.**

2           A. An application for a permit must contain the following:

3               (1) the names and addresses of the owners and the signature of at least one of  
4 the owners;

5               (2) the legal name and business address of the facility, if different than the  
6 owner;

7               (3) the location of the facility by county, township, section, and quarter section;

8               (4) a list of all animal types, and the maximum number of animals of each  
9 animal type that can be confined within each lot, building, or area at the animal feedlot;

10              (5) a list of all existing and proposed manure storage areas, including plans and  
11 specifications as required in part 7020.2100 for proposed liquid manure storage areas  
12 and part 7020.2125 for permanent stockpile sites;

13              (6) the total number of animal units the facilities listed in subitems (4) and (5)  
14 will be capable of holding after completing construction or expansion;

15              (7) the soil type or texture and depth to saturated soils at the facility as  
16 identified in the USDA Soil Survey Manual or a site-specific soils investigation. If  
17 applicable, submittal of the soils investigation information required in parts 7020.2100 to  
18 7020.2225, meets this requirement;

19              (8) an aerial photograph showing the location of all wells, buildings, surface tile  
20 intakes, lakes, rivers, and watercourses within 1,000 feet of the proposed facility;

21              (9) the number of acres available for land application of manure;

22              (10) if applying for an SDS or NPDES permit or interim permit under part  
23 7020.0405, subpart 1, item C, subitem (2), a manure management plan that meets the  
24 requirements under part 7020.2225, subpart 4;

25              (11) if applicable, a description of all conditions that make the facility a pollution



1 hazard and a description of the corrective and protective measures proposed to correct  
2 the pollution hazard;

3 ~~(12) additional questions needed to evaluate high priority environmental issues~~  
4 ~~related to the facility; and~~

5 ~~(13) if applying for an NPDES permit, a supplemental federal application form.~~

6 B. In addition to the requirements of item A, a permit application for an animal  
7 feedlot ~~or~~ capable of holding 1,000 animal units or more or a manure storage area for  
8 capable of holding the manure produced by 1,000 animal units or more, or the manure  
9 produced by 1,000 animal units or more, must contain:

10 (1) an air emission plan that includes:

11 (a) methods and practices that will be used to minimize air emissions  
12 resulting from animal feedlot or manure storage area operations including manure  
13 storage area start-up practices, loading, and manure removal;

14 (b) measures to be used to mitigate air emissions in the event of an  
15 exceedance of the state ambient hydrogen sulfide standard; and

16 (c) a complaint response protocol describing the procedures the owner will  
17 use to respond to complaints directed at the facility, including:

18 i. a list of each potential odor source at the facility;

19 ii. a determination of the odor sources most likely to generate significant  
20 amounts of odors; and

21 iii. a list of anticipated odor control strategies for addressing each of the  
22 significant odor sources; and

23 ~~(2) a pollution prevention plan for eliminating or reducing toxic pollutants,~~  
24 ~~hazardous substances, and hazardous wastes at animal feedlot or manure storage area~~  
25 ~~operations; and~~

1           (3) an emergency response plan that includes a description of the procedures  
2 that will:

3           (a) contain, minimize, and manage an unauthorized discharge;

4           (b) provide notification to the proper authorities; and

5           (c) mitigate any adverse effects of an unauthorized discharge.

6           C. In addition to the requirements of items A and B, an owner proposing to  
7 construct or expand an animal feedlot or a manure storage area shall also submit, on a  
8 form provided by the commissioner, certification and documentation that the owner has  
9 notified the local zoning authority, as required under part 7020.2000, subpart 5, of the  
10 proposed new or expanded animal feedlot or manure storage area, or that no such local  
11 zoning controls exist.

12           D. In addition to the requirements of items A to C, an owner proposing to  
13 construct or expand an animal feedlot ~~or~~ with the capacity of 500 animal units or more  
14 or a manure storage area with the capacity of to hold the manure produced by 500  
15 animal units or more shall also certify and document, on forms provided by the  
16 commissioner, that the notification requirements under part 7020.2000, subpart 4, have  
17 been met.

18           E. The owner of an animal feedlot or a manure storage area shall submit additional  
19 information relating to the facility design, construction, or operation as requested by the  
20 commissioner or county feedlot pollution control officer to evaluate compliance with  
21 applicable federal and state rules.

22           Subp. 5. **Application processing.** Permit applications must be processed according to  
23 items A to C.

24           A. NPDES and SDS permits must be processed according to the procedures under  
25 this part and part 7001.0020, item F.

1 B. The agency and delegated county shall issue, reissue, revoke and reissue, or  
2 modify a permit according to part 7001.0140 and other applicable agency rules.

3 C. Construction short-form and interim permit applications must be processed in  
4 accordance with parts 7020.0505 and 7020.0535. County feedlot pollution control officers  
5 shall also process permit applications according to part 7020.1600, subpart 4.

6 Subp. 6. **Application for variance.** Any person may apply for a variance from any  
7 requirement of parts 7020.2000 to 7020.2225 in order to avoid undue hardship. A  
8 variance must be applied for and acted upon by the agency according to Minnesota  
9 Statutes, section 116.07, subdivision 5, and other applicable statutes and rules.

#### 10 **7020.0535 CONSTRUCTION SHORT-FORM AND INTERIM PERMITS.**

11 Subpart 1. **Applicability.** This part applies to owners ~~that~~ who apply for construction  
12 short-form and interim permits required under part 7020.0405.

13 Subp. 2. **Permit applications submitted prior to effective date of this part.** If an  
14 owner has submitted a complete permit application for construction of an animal  
15 feedlot or a manure storage area prior to the effective date of this part and is eligible for  
16 a construction short-form permit, the owner may request to have the original  
17 application voided, returned, or, upon receipt of a construction short-form permit  
18 application by the commissioner or county feedlot pollution control officer, to have the  
19 original application submittals incorporated into the construction short-form permit  
20 application. Complete construction short-form permit applications submitted under this  
21 subpart must be considered received by the commissioner or county feedlot pollution  
22 control officer on the date the original completed permit application for an agency  
23 permit was received.

24 Subp. 3. **Delegated county procedures for denial and revocation.**

25 A. In the case of a denial of a permit application by the county feedlot pollution  
26 control officer, the applicant must be informed in writing by the county of the reasons

1 for denial and must be informed of appeal procedures under chapter 7001. The  
2 applicant shall retain all rights of fundamental fairness afforded by law and the  
3 applicant may make an appeal to the agency to review the county's action. The denial  
4 by a county shall be without prejudice to the applicant's right to an appearance before  
5 the agency to request a public hearing or to file a further application after revisions are  
6 made to meet objections specified as reasons for denial.

7 B. In order for a delegated county to revoke a permit, a copy of the permit together  
8 with a written justification for revocation must be submitted to the commissioner for  
9 review. The commissioner shall, after receipt of the justification for revocation from the  
10 county, review the matter within 60 days to determine compliance with applicable  
11 agency rules. The county must receive written approval of the permit revocation from  
12 the commissioner before taking action. If a revocation has been approved by the  
13 commissioner, the applicant must be informed in writing by the county of the reasons  
14 for revocation and the applicant shall retain all rights of appeal afforded under chapter  
15 7001. Revocation without reissuance of the permit must follow the requirements under  
16 part 7001.0180.

17 Subp. 4. **No circumvention.** An owner ~~that~~ who obtains a construction short-form or  
18 interim permit is subject to enforcement action for construction or operation without a  
19 permit if the commissioner or county feedlot pollution control officer later determines  
20 that the animal feedlot or a manure storage area does not qualify for the construction  
21 short-form or interim permit that was issued and that the owner is required to apply for  
22 and obtain an SDS or NPDES permit.

23 Subp. 5. **Duration of construction short-form and interim permits.** All construction  
24 short-form and interim permits expire within 24 months of the date of issuance. If the  
25 work for which a construction short-form permit was issued is not complete upon  
26 expiration of the permit, the expiration date of the permit may be extended by no more  
27 than 24 months if the owner complies with items A and B. If the pollution hazard for

1 which an interim permit was issued is not corrected upon expiration of the permit, the  
2 expiration date may be extended by no more than 90 days if:

3 A. the facility is currently eligible for the same permit; and

4 B. the owner notifies the commissioner or county feedlot pollution control officer  
5 at least 90 days prior to the expiration of the permit. The notification shall include:

6 (1) the name of the owner, and the name of the facility if different from the  
7 owner;

8 (2) the permit number;

9 (3) the reason the work may not be completed prior to expiration of the permit;

10 (4) the estimated amount of time required to complete the work; and

11 (5) if the animal feedlot under construction or expansion will be capable of  
12 holding 500 animal units or more, or the manure storage area under construction or  
13 expansion will be capable of holding the manure produced by 500 animal units or more  
14 when completed, the notification requirements under part 7020.2000, subpart 4, on a  
15 form provided by the commissioner, submitted to the commissioner or delegated  
16 county feedlot pollution control officer. In addition to the information required under  
17 part 7020.2000, subpart 4, the notification must include the date on which the original  
18 permit was issued and the new proposed completion date.

19 Subp. 6. **Construction short-form permit content.** A construction short-form permit  
20 issued by the commissioner or county feedlot pollution control officer must state: "The  
21 permittee shall comply with Minnesota Rules, parts 7020.2000 to 7020.2225, and all  
22 applicable requirements." The permit must also identify at least the following  
23 information:

24 A. the permit number;

25 B. the owners' names and addresses;

1 C. the legal name of the animal feedlot, or manure storage area if different from  
2 that of the owner;

3 D. the location of the facility by county, township, section, and quarter section;

4 E. the existing and proposed animal types and types of animal holding areas;

5 F. the maximum number of animal units authorized at the facility after  
6 construction or expansion is complete; and

7 G. the types of existing and proposed manure storage areas. Design plans and  
8 specifications for proposed manure storage areas shall be incorporated by reference into  
9 the permit.

10 The general conditions in part 7001.0150, excluding subpart 3, item P, must be  
11 incorporated by reference in all construction short-form permits.

12 Subp. 7. **Interim permit content.** An interim permit issued by the commissioner or  
13 county feedlot pollution control officer must include at least the information in subpart  
14 6 and the following:

15 A. the corrective and protective measures required to bring the facility into  
16 compliance with parts 7020.2000 to 7020.2225;

17 B. the schedule under which the corrective and protective measures must be  
18 completed; and

19 C. additional requirements related to the specific site or operation as determined  
20 necessary to ensure compliance with applicable rules and requirements.

21 Subp. 8. **Expansion stocking limitations.** An owner issued an interim permit that  
22 authorizes construction for an expansion shall not stock the expansion prior to the  
23 fulfillment of all permit conditions related to the correction of the pollution hazard for  
24 which the interim permit was issued.

25 **DELEGATED COUNTY PROGRAM**

1     **7020.1600 AUTHORITIES AND REQUIREMENTS FOR DELEGATED COUNTIES.**

2     Subpart 1. **Scope.** A county delegation process consists of the following:

3         A. the county board resolution;

4         B. commissioner authorization;

5         C. a delegation agreement signed by the county board and commissioner;

6         D. periodic review of the delegation agreement; and

7         E. when applicable, withdrawal from the program by the county board or  
8     revocation of authorization to administer the program by the commissioner.

9     Subp. 2. **County feedlot pollution control officer requirements.** A delegated county  
10  animal feedlot program shall require the county feedlot pollution control officer to:

11         A. administer animal feedlots, and manure storage areas, ~~and pasture~~ registration  
12  programs according to part 7020.0350;

13         B. locate and register all animal feedlots, and manure storage areas, ~~and pastures~~  
14  that remain unregistered by the date required under part 7020.0350;

15         C. distribute permit application and registration forms to owners required to make  
16  application for a permit. Permit application forms must contain the information  
17  required in part 7020.0505, subpart 3;

18         D. review permit applications and issue construction short-form and interim  
19  permits in accordance with part 7020.0535, and in the approved delegation agreement;

20         E. inspect all animal feedlots, and manure storage areas, ~~and pastures~~ in  
21  accordance with the approved delegation agreement;

22         F. review and process complaints;

23         G. provide assistance to owners in completing permit applications;

24         H. maintain a record of all correspondence and material relating to permit  
25  applications, inspections, and complaints;

1           I. maintain a record of all notifications received from livestock production facility  
2 operators claiming the hydrogen sulfide ambient air quality standard exemption,  
3 including the days the exemption was claimed and the cumulative days used, as  
4 provided in Minnesota Statutes, section 116.0713, paragraphs (b) and (c);

5           J. submit an annual report to the commissioner by April 1 of each year, in a format  
6 requested by the commissioner, that includes the following:

7           (1) all newly acquired and updated registration information required under part  
8 7020.0350;

9           (2) inspection summary information from the previous year;

10           (3) permitting summary information from the previous year, including  
11 information regarding permits for facilities with fewer than 1,000 animal units that are  
12 CAFOs under Code of Federal Regulations, title 40, part 122, appendix B(b);

13           (4) complaint and complaint response summary information from the previous  
14 year;

15           (5) outreach and education summary information from the previous year; and

16           (6) summary of the progress toward achieving the goals identified in the  
17 approved delegation agreement and, if applicable, proposed adjustments to the goals or  
18 plans to meet the goals in the approved delegation agreement; and

19           J K. complete the required county feedlot pollution control officer training  
20 necessary to perform the duties described under this part assigned to the county feedlot  
21 pollution control officer; and

22           L. forward to the commissioner all permit applications, inspection reports, and all  
23 other applicable documents for the facilities identified in subpart 4, item B.

24           Subp. 3. **Resolutions and delegation agreements.** To assume responsibility for  
25 administering the delegated county feedlot program under this part, a Minnesota



1 county board shall complete the requirements in items A to D. Counties that have  
2 received delegation authorization from the commissioner prior to the effective date of  
3 this subpart may administer the delegated county feedlot program provided that the  
4 requirements of item B are completed by June 1, 2001. Delegation agreements must be  
5 reviewed and revised by the commissioner and the county annually to determine if the  
6 requirements of item B are being fulfilled and to establish new goals.

7 A. Submit to the commissioner a resolution duly adopted by the county board  
8 requesting permission to administer the animal feedlot program in the county.

9 B. Submit to the commissioner, for review and approval, a delegation agreement  
10 that contains:

11 (1) inspection goals for facilities with capable of holding fewer than 300 animal  
12 units or the manure produced by fewer than 300 animal units:

13 (a) at existing facilities for the purposes of identifying pollution hazards;

14 (b) at new and expanding facilities for which construction activities have  
15 commenced; and

16 (c) for determining compliance with discharge standards and schedules for  
17 existing open lot facilities eligible under part 7020.2003, subparts 3 to 6;

18 (2) inspections conducted at facilities with capable of holding 300 to 999 animal  
19 units or the manure produced by 300 to 999 animal units for the facilities meeting the  
20 conditions under subitem (1), units (a) and (b);

21 (3) permitting goals;

22 (4) registration goals, including locating and registering facilities that remain  
23 unregistered after the date required under part 7020.0350;

24 (5) scheduled compliance goals, coordinated with county local water plans, for  
25 bringing feedlot operations into compliance with the applicable standards under parts

1 7020.2000 to 7020.2225, including the compliance dates of part 7020.2003, subparts 5,  
2 item B, and 6, item A, considering the following:

3 (a) type and extent of the pollution hazard at feedlot operations;

4 (b) availability of private and public financial resources for cost-share grants  
5 and low-interest loans; and

6 (c) availability of private and public technical and administrative assistance;

7 (6) complaint response and resolution goals;

8 (6) (7) owner assistance goals; and

9 (7) (8) staffing levels available to achieve the stated goals.

10 C. Receive written authorization from the commissioner to administer the program  
11 identified in subpart 1.

12 D. Designate a county feedlot pollution control officer as having the primary  
13 responsibility for the animal feedlot permit program and charge the person with the  
14 duties in subpart 2.

15 Subp. 4. **Permit application processing procedures.** The processing of permit  
16 applications by a delegated county shall be conducted according to the procedures in  
17 items A to D.

18 A. The county feedlot pollution control officer shall process permit applications  
19 and issue construction short-form and interim permits according to this part and part  
20 7020.0535, except as directed in item B.

21 B. The county feedlot pollution control officer shall forward to the commissioner  
22 for issuance all permit applications and all other applicable documents, comments, and  
23 recommendations for the following:

24 (1) all facilities that are required to apply for a permit under part 7020.0405,  
25 subpart 1, item A or B;

1 (2) all facilities where all animal manure is not used as domestic fertilizer;

2 (3) all facilities ~~with~~ capable of holding 500 or more animal units or the manure  
3 produced by 500 or more animal units that are proposing liquid manure storage areas  
4 within 1,000 feet of an open or filled sinkhole, a known cave, a resurgent spring, a  
5 disappearing stream, a karst window, or a blind valley;

6 (4) all facilities with 500 or more animal units that are within a vulnerable  
7 drinking water supply management area, as described on a Minnesota Department of  
8 Health approved wellhead protection plan; and

9 (5) all facilities for which an application for a variance under part 7020.0505,  
10 subpart 6, is submitted.

11 C. The county feedlot pollution control officer may forward to the commissioner  
12 any permit application when technical assistance or permit issuance by the  
13 commissioner is desired with a statement of the action desired from the agency. The  
14 commissioner shall process all complete permit applications forwarded by the county  
15 with a request to issue a permit, and shall notify the county of the status of the review  
16 and of any intended action.

17 D. The county feedlot pollution control officer shall forward to the commissioner  
18 permit applications for facilities that are eligible for the exemption under part 7020.2100,  
19 subpart 2, item C, for review and approval before a permit can be issued by the county  
20 feedlot pollution control officer.

21 Subp. 3. [See repealer.]

22 Subp. 4. [See repealer.]

23 Subp. 5. [See repealer.]

24 Subp. 5- 6. Withdrawal by county from review process. A delegated county no  
25 longer wishing to have delegation authority shall submit a resolution to the  
26 commissioner stating its reasons for withdrawal and the effective date of withdrawal.

1 Subp. 6: 7. Revocation of county review authority. If the agency finds that a county  
2 program is not meeting the requirements of this chapter, the agency may, after giving  
3 the county written notice and an opportunity to respond, revoke its approval of the  
4 county's delegation.

5 **STANDARDS FOR DISCHARGE, DESIGN,**  
6 **CONSTRUCTION, OPERATION, AND CLOSURE**

7 **7020.2000 OVERVIEW.**

8 Subpart 1. **In general.** An owner of ~~pastures, an animal feedlots, and feedlot~~ or a  
9 manure storage areas area, and a any person storing, transporting, disposing, or  
10 utilizing animal manure, or process wastewaters, ~~or process-generated wastewaters,~~  
11 shall comply with parts 7020.2000 to 7020.2225.

12 Subp. 2. **Animal manure and wastewaters not used as domestic fertilizer.** Animal  
13 manure, or process wastewaters, ~~or process-generated wastewaters~~ not used as  
14 domestic fertilizer must be treated or disposed of in accordance with applicable rules.  
15 An owner not using manure or process wastewaters as domestic fertilizer shall apply  
16 for a permit according to part 7020.0405, subpart 1, item A or B.

17 Subp. 3. **Manure packs and mounding.** Manure accumulations created by manure  
18 packs or mounding must be ~~removed annually and applied on land~~ managed such that  
19 a pollution hazard is not created or maintained. Land application must be in accordance  
20 with part 7020.2225.

21 Subp. 4. **Newspaper Notification of proposed construction or expansion.** An owner  
22 of an animal feedlot or manure storage area proposing to construct or expand an animal  
23 feedlot capable of holding 500 or more animal units, or a manure storage area capable of  
24 holding the manure produced by 500 or more animal units, shall ~~publish~~ no later than  
25 ten business days after the application is submitted to the agency or delegated county,  
26 provide notice to each resident and each owner of real property within 5,000 feet of the  
27 perimeter of the proposed feedlot by:

1           A. publishing in a newspaper of general circulation within the affected area a  
2 notification ~~not later than ten business days after the permit application is submitted to~~  
3 ~~the agency or delegated county. The notification must contain~~ containing the following  
4 information:

5           A. (1) the names of the owners or the legal name of the facility;

6           B. (2) the location of the facility by county, township, section, and quarter  
7 section;

8           C. (3) ~~the types of animals and the~~ species of livestock and total animal units;

9           (4) types of confinement buildings, lots, and areas at the animal feedlot; and

10           ~~D. the total number of each type of animal the facility will be capable of holding~~  
11 ~~after construction;~~

12           E. (5) the types of manure storage areas; and

13           ~~F. for manure storage areas, the total quantity of manure that each area can hold.~~

14           B. sending a written notice to them containing the information in item A, subitems  
15 (1) to (5), delivered by first class mail or in person; or

16           C. providing equal or greater notification required as part of obtaining a county  
17 conditional use permit.

18           Subp. 5. **Government notifications of proposed construction or expansion.** An  
19 owner proposing to construct or expand an animal feedlot or manure storage area shall  
20 notify the government authorities listed in items A and B. Notification must be on a  
21 form provided by the commissioner and include the information in subpart 4, ~~items~~  
22 item A to F, subitems (1) to (5).

23           A. The commissioner, or in a delegated county the county feedlot pollution control  
24 officer, at least 30 days prior to commencement of construction of a new animal feedlot  
25 or manure storage area or an expansion of an existing animal feedlot capable of holding

1 fewer than 300 animal units or a manure storage area with capable of holding the  
2 manure produced by fewer than 300 animal units after construction. Notification under  
3 this item is complete if the owner is proposing construction or modification of a liquid  
4 manure storage area and has submitted plans and specifications in accordance with part  
5 7020.2100, subpart 4.

6 B. All local zoning authorities, including county, town, and city zoning authorities,  
7 of the proposed construction or expansion at least 30 days prior to commencement of  
8 construction of a new feedlot or manure storage area or an expansion of an existing  
9 animal feedlot or manure storage area.

10 Subp. 6. **Record of livestock owners and manure sources.** Owners of animal feedlots  
11 or manure storage areas that raise livestock that are not owned by them or store manure  
12 not produced at their facilities must record and retain on file the names of the livestock  
13 or manure source owners for at least the most recent three years.

14 **7020.2002 HYDROGEN—SULFIDE AMBIENT AIR QUALITY STANDARD**  
15 **APPLICABILITY.**

16 The owner of an animal feedlot is exempt from the state ~~hydrogen sulfide standard in~~  
17 ~~part 7009.0080~~ ambient air quality standards during ~~agitation and pump-out of a liquid~~  
18 ~~manure storage area for a maximum of 17 days annually if the requirements in items A~~  
19 ~~to C are met. This part expires on July 1, 2005~~ the removal of manure from barns or  
20 manure storage facilities pursuant to the limitations in Minnesota Statutes, section  
21 116.0713, paragraphs (b) and (c). Nothing in this part limits the emergency powers  
22 authority of the Minnesota Pollution Control Agency in Minnesota Statutes, section  
23 116.11.

24 ~~A.~~ The owner operator of a livestock production facility that claims exemption  
25 from the state ambient air quality standards shall notify the commissioner or county  
26 feedlot pollution control officer ~~prior to agitation and pumping events.~~ Notification

1 must include the anticipated start date and the anticipated number of days of the  
2 agitation and pumping event.

3 B. The owner shall inject or incorporate the manure within 24 hours of land  
4 application.

5 C. The owner shall implement best management practices for control of odor  
6 during agitation and pumping as defined by the University of Minnesota and as  
7 published by the agency in the State Register:

8 A. the names of the owners or the legal name of the facility;

9 B. the location of the facility by county, township, section, and quarter section;

10 C. the facility's permit number, if applicable; and

11 D. the anticipated start date and the anticipated number of days of removal of  
12 manure from barns or manure storage facilities.

### 13 7020.2003 WATER QUALITY DISCHARGE STANDARDS.

14 Subpart 1. **Animal feedlots, and manure storage areas, and pastures.** Animal  
15 manure, manure-contaminated runoff, or process wastewater, or process-generated  
16 wastewater from any animal feedlot, including CAFOs, or manure storage area or  
17 pasture area is prohibited from flowing into a sinkhole, fractured bedrock, well,  
18 surface tile intake, mine, or quarry is prohibited.

19 Subp. 2. **CAFOs and facilities with 1,000 animal units or more.** An owner of an  
20 animal feedlot or manure storage area that is a CAFO or is capable of holding 1,000  
21 animal units or more, or a manure storage area capable of holding the manure produced  
22 by 1,000 animal units or more, shall comply with the effluent limitation requirements of  
23 Code of Federal Regulations, title 40, part 412.

24 Subp. 3. **Other facilities.** An owner of an animal feedlot or a manure storage area  
25 shall comply with the effluent limitations in part 7050.0215 unless the animal feedlot or

1 the manure storage area is subject to the effluent limitation requirements in subpart 2 or  
2 if the owner of the animal feedlot is subject to and meets all of the requirements in  
3 subpart 4.

4 Subp. 4. **Eligible open lot feedlots with capable of holding fewer than 300 animal**  
5 **units.** Owners of animal feedlots ~~having~~ capable of holding fewer than 300 animal units  
6 and having open lots meeting the eligibility requirements in items A to D shall comply  
7 with subparts 5 and 6. If the facility expands to a capacity of 300 or more animal units,  
8 the facility is not eligible under this subpart. This subpart applies only to open lots that  
9 existed on the effective date of this part; discharges from other parts of the animal  
10 feedlot, including manure storage areas, must comply with the effluent limitations in  
11 part 7050.0215 and other applicable federal and state requirements.

12 A. The animal feedlot is not a new animal feedlot.

13 B. The animal feedlot has manure-contaminated runoff from one or more open lots  
14 that discharge to waters of the state and:

15 (1) the manure-contaminated runoff does not create or maintain an immediate  
16 threat to human health or the environment; and

17 (2) the facility has not been designated a CAFO.

18 C. The owner has registered the animal feedlot in accordance with part 7020.0350.

19 D. The owner has submitted a certification, on a form provided by the  
20 commissioner, agreeing to comply with subparts 5 and 6. The certification form shall  
21 contain a provision for a conditional waiver of civil penalties for past violations of part  
22 7050.0215 caused solely by passive manure-contaminated runoff from open lots and for  
23 failure to apply for a permit provided the owner maintains compliance with subparts 5  
24 and 6.

25 Subp. 5. **Interim corrective measures for eligible open lots.** An owner meeting the  
26 eligibility requirements of subpart 4 shall:



1 A. operate and manage the animal feedlot to minimize discharges from eligible  
2 open lots at all times; and

3 B. comply with the following by October 1, ~~2003~~ 2005:

4 (1) install and have operational:

5 (a) diversions that prevent precipitation and snowmelt from building roofs  
6 and upslope land from flowing onto or through the animal feedlot or manure storage  
7 area; and

8 (b) vegetated buffer areas or filter strips that have 100 feet or more of  
9 nonchannelized flow through perennial grasses or forages for all runoff from the open  
10 lots; ~~and~~ or

11 (2) install and have operational interim corrective and protective measures that  
12 have been demonstrated, through completion of "An Evaluation System To Rate Feedlot  
13 Pollution Potential" (the model) by a person who has completed training in use of the  
14 model, to achieve a 50 percent or greater reduction in discharges of phosphorus and  
15 biochemical oxygen demand loading. The percent reduction in discharges must be  
16 based on a comparison of the corrective and protective measures in operation at the  
17 facility on the effective date of this part and the proposed interim corrective and  
18 protective measures and practices. The owner shall maintain records of the model  
19 results until completing the requirements of subpart 6, and make the model results  
20 available to the commissioner or county feedlot pollution control officer upon request.

21 **Subp. 6. Final corrective measures for eligible open lots.** An owner meeting the  
22 requirements of subpart 4 shall:

23 A. except as required in item B, comply with part 7050.0215 for all eligible open  
24 lots by October 1, ~~2009~~ 2010; and

25 B. if the owner is proposing an expansion, comply with subpart 2 or 3, as  
26 applicable, prior to an increase in the number of animal units at the animal feedlot.

1       **7020.2005 LOCATION RESTRICTIONS AND EXPANSION LIMITATIONS.**

2       Subpart 1. **Location restrictions.** Except as provided in items A and B, a new animal  
3       feedlot or a manure storage area must not be constructed within shoreland, a floodplain,  
4       300 feet of a sinkhole, 100 feet of a private well, or 1,000 feet of a community water  
5       supply well or other wells serving a public school as defined under Minnesota Statutes,  
6       section 120A.05, a private school excluding home school sites, or a licensed child care  
7       center that are in a geologic setting where the well is vulnerable according to part  
8       4720.5550, subpart 2, ~~item D, subitem (2).~~

9           A. ~~A new animal feedlot or manure storage area may be constructed in the Red~~  
10       ~~River of the North floodplain if it is a minimum of 1,000 feet from the ordinary high~~  
11       ~~water mark.~~

12           B. An animal feedlot or a manure storage area located in shoreland meeting part  
13       7020.0300, subpart 15, item B:

14           (1) that has been unused for less than ten years is a pollution hazard and may  
15       resume operation after applying for and obtaining an interim permit under part  
16       7020.0405, subpart 1, item C; or

17           (2) that has been unused for ten years or more must not resume operation.

18           B. A new animal feedlot or manure storage area may be constructed within 1,000  
19       feet of a community water supply well or other well serving a public school as defined  
20       under Minnesota Statutes, section 120A.05, a private school excluding home school sites,  
21       or a licensed child care center if the following three conditions are met:

22           (1) the Minnesota Department of Health has approved a drinking water supply  
23       management area for the well under part 4720.5360;

24           (2) the animal feedlot or manure storage area is not within the drinking water  
25       supply management area; and

1           (3) the animal feedlot or manure storage area is not within 200 feet of the well.

2           Subp. 2. **Shoreland expansion limitations.** An existing animal feedlot or manure  
3 storage area located in shoreland may not expand to a capacity of 1,000 animal units or  
4 more or the manure produced by 1,000 animal units or more. An existing animal feedlot  
5 or a manure storage area expanding in shoreland shall not locate any portion of the  
6 expanded animal feedlot or the manure storage area closer to the ordinary high water  
7 mark than any existing portion of the animal feedlot or the manure storage area.

8           Subp. 3. **Floodplain expansion limitations.** An existing animal feedlot or a manure  
9 storage area located in a floodplain may not expand ~~except if it is in the Red River of the~~  
10 ~~North floodplain and is a minimum of 1,000 feet from the ordinary high water mark.~~

#### 11   **7020.2010 TRANSPORTATION OF MANURE.**

12           Animal manure hauled on federal, state, or local highways, roads, or streets must be  
13 hauled in such a way as to prevent manure from leaking, spilling, or otherwise being  
14 deposited in the right-of-way. Manure deposited on a public roadway must be removed  
15 and properly disposed of by the hauler of the manure.

#### 16   **7020.2015 LIVESTOCK ACCESS TO WATERS RESTRICTION.**

17           Subpart 1. **CAFOs and facilities with capable of holding 1,000 or more animal units.**  
18 Animals of a CAFO or of a facility with capable of holding 1,000 or more animal units  
19 must not be allowed to enter waters of the state.

20           Subp. 2. **Non-CAFO animal feedlots.** Except as required in subpart 1, by October 1,  
21 2001, animals of a non-CAFO animal feedlot must be fenced to prohibit entry to, and  
22 must not be allowed to enter, a lake classified by the Minnesota Department of Natural  
23 Resources as a natural environment lake, recreational development lake, or a general  
24 development lake, as defined in part 6120.3000.

25           ~~Subp. 3. **Pastures.** Except as required in subpart 1, by October 1, 2001, animals on~~  
26 ~~pastures must be restricted from access to a lake classified by the Minnesota Department~~

1 of Natural Resources as a natural environment lake, recreational development lake, or a  
2 general development lake, as defined in part 6120.3000, by:

3 ~~A. prohibiting entry to the lake; or~~

4 ~~B. allowing controlled access to the lake in accordance with a plan conforming to:~~  
5 ~~the controlled access options in part 2(i) of the Management of Grazing Lands in United~~  
6 ~~States Department of Agriculture, Natural Resources Conservation Service (NRCS);~~  
7 ~~Natural Range and Pasture Handbook Chapter 5; Minnesota NRCS Conservation~~  
8 ~~Practice Standard, Prescribed Grazing, Code No. 528A, or Heavy Use Area Protection,~~  
9 ~~Code No. 561. The plan must be maintained by the owner and made available to the~~  
10 ~~commissioner or county feedlot pollution control officer upon request.~~

#### 11 **7020.2025 ANIMAL FEEDLOT OR MANURE STORAGE AREA CLOSURE.**

12 The owner of an animal feedlot or a manure storage area is responsible for closure  
13 and shall:

14 A. within one year of ceasing operation, remove and land apply manure and  
15 manure-contaminated soils from manure storage areas and animal holding areas in  
16 accordance with part 7020.2225;

17 B. as soon as practicable after completing the requirements of item A, reduce soil  
18 nitrogen by growing alfalfa, grasses, or other perennial forage for at least five years; and

19 C. within 60 days after final closure, submit a certified letter to the commissioner  
20 or county feedlot pollution control officer stating that the animal feedlot or the manure  
21 storage area has been closed according to the requirements in this part. The letter must  
22 identify the location of the animal feedlot or the manure storage area by county,  
23 township, section, and quarter section.

#### 24 **7020.2100 LIQUID MANURE STORAGE AREAS.**

25 Subpart 1. **General.** This part describes site restrictions and requirements for design,  
26 construction, maintenance, and operation of liquid manure storage areas. An owner

1 shall submit a permit application, as applicable, under part 7020.0405, subparts 1 and 2.  
2 Except as required in subpart 2, all liquid manure storage areas must be designed,  
3 constructed, and operated in accordance with subparts 3 to 7. An owner of a liquid  
4 manure storage area that has been unused for a period of three years or more shall,  
5 prior to using the structure for storing manure or process wastewaters, have a design  
6 engineer evaluate and prepare a report on the condition of the liner and include this  
7 report with a permit application submitted according to part 7020.0405.

8 Subp. 2. **Site restrictions.** Except as provided in item C, the construction or expansion  
9 of a liquid manure storage area is prohibited in the areas identified under part 7020.2005  
10 and items A and B.

11 A. A manure storage area with a capacity of more than 250,000 gallons in an area  
12 where geologic conditions are suitable for sinkhole development and where four or  
13 more sinkholes exist within 1,000 feet of the proposed site.

14 B. In areas which are susceptible to soil collapse or sinkhole formation, the  
15 minimum separation distance to bedrock and the manure storage area liner design  
16 standards under subpart 3, item B, and prohibitions must be in accordance with  
17 subitems (1) to (3).

18 (1) Animal feedlots capable of holding fewer than 300 animal units or manure  
19 storage areas with capable of holding manure produced by fewer than 300 animal units  
20 that contribute to liquid manure storage areas at the facility must comply with the  
21 following:

22 (a) where the separation distance to bedrock is less than five feet, construction  
23 of a liquid manure storage area is prohibited; and

24 (b) where the separation distance to bedrock is five feet or more and less than  
25 20 feet, the manure storage area liner must be concrete-lined, aboveground, or  
26 composite-lined according to subpart 3, item B, subitem (2) or (3).

1           (2) Animal feedlots capable of holding 300 or more and fewer than 1,000 animal  
2 units and manure storage areas with capable of holding the manure produced by 300 or  
3 more and fewer than 1,000 animal units that contribute to liquid manure storage areas  
4 at the facility shall comply with the following:

5           (a) except as provided in unit (c), where the separation distance to bedrock is  
6 less than ten feet, construction of a liquid manure storage area is prohibited;

7           (b) where the separation distance to bedrock is ten feet or more and less than  
8 30 feet, the manure storage area liner must be concrete-lined, aboveground, or  
9 composite-lined according to subpart 3, item B, subitem (2) or (3); and

10           (c) where the separation distance to bedrock is five feet or more and less than  
11 ten feet, the manure storage area must be:

12           i. an aboveground manure storage area;

13           ii. concrete-lined with a secondary liner consisting of a synthetic liner,  
14 HDPE liner, or one foot or greater cohesive soil liner; and or

15           iii. composite-lined with at least a three-foot compacted cohesive soil liner  
16 under the synthetic liner.

17           (3) Animal feedlots capable of holding 1,000 or more animal units or manure  
18 storage areas with capable of holding the manure produced by 1,000 or more animal  
19 units that contribute to liquid manure storage areas at the facility shall comply with the  
20 following:

21           (a) except as provided in unit (c), where the separation distance to bedrock is  
22 less than 15 feet, construction of a liquid manure storage area is prohibited;

23           (b) where the separation distance to bedrock is 15 feet or more and less than  
24 40 feet, the manure storage area liner must be concrete-lined, aboveground, or  
25 composite-lined according to subpart 3, item B, subitem (2) or (3); and

1 (c) where the separation distance to bedrock is ten feet or more and less than  
2 15 feet, the manure storage area must be:

- 3 i. an aboveground manure storage area;
- 4 ii. concrete-lined with a secondary liner consisting of a synthetic liner,  
5 HDPE liner, or one foot or greater cohesive soil liner; and or
- 6 iii. composite-lined with at least a three-foot compacted cohesive soil liner  
7 under the synthetic liner.

8 C. Where construction or modification is required to correct a pollution hazard at  
9 an existing animal feedlot ~~or manure storage area having~~ capable of holding fewer than  
10 300 animal units, construction or modification is not prohibited. Construction or  
11 modification under this item must not result in an expansion of the animal feedlot  
12 capacity to hold more than 300 animal units or the manure storage area to capacity to  
13 hold the manure produced by 300 animal units or greater.

14 Subp. 3. **Design standards.**

15 A. A new or modified liquid manure storage area at an animal feedlot capable of  
16 holding 1,000 animal units or more or the manure storage area with capable of holding  
17 the manure produced by 1,000 animal units or more must be designed to provide a  
18 minimum of nine months of storage capacity.

19 B. Liquid manure storage area liners must comply with the following:

20 (1) non-concrete-lined manure storage areas must be designed and constructed  
21 to achieve a maximum theoretical seepage rate of not more than 1/56 inch per day  
22 throughout the design life of the manure storage area;

23 (2) concrete-lined manure storage areas must be designed and constructed with:  
24 water stops or joint sealant materials at all construction joints; sealing of all cracks which  
25 may extend through the concrete liner with appropriate sealing materials; and a floor  
26 having a concrete thickness of not less than five inches, ~~and~~ The floors must have:

1           (a) steel reinforcing based on subgrade drag theory in American Concrete  
2 Institute, Slabs on Grade, ACI-360; and or

3           **(b) fiber reinforcing, for which the design engineer must specify the type of**  
4 **fibers and the dosage rate in subpart 4, item F;**

5           (3) composite-lined or aboveground manure storage areas must be designed  
6 and constructed to achieve a maximum theoretical seepage rate of not more than 1/560  
7 inch per day throughout the design life of the manure storage area; and

8           **(4) aboveground manure storage areas located in areas not subject to the site**  
9 **restrictions under subpart 2, may be designed and constructed according to seepage**  
10 **standards under subitem (1) or (2), as applicable.**

11           C. Water supply systems, fuel lines, electrical conduit, or other equipment not  
12 solely functioning as part of the manure handling or transfer system must not be  
13 designed or constructed to penetrate the liner of a liquid manure storage area. Piping  
14 and equipment functioning as part of the manure handling or transfer system which  
15 penetrates the liner of a liquid manure storage area must be identified in the design  
16 plans and specifications. The design plans and specifications must include details on the  
17 location and purpose of the penetrations, dimensions of the penetrations, and the  
18 methods and materials used to provide a seal between each penetration and the liner.

19           Subp. 4. **Design plans and specifications.** The owner shall prepare and submit to the  
20 commissioner or county feedlot pollution control officer design plans and specifications  
21 meeting the requirements of items A to N with a permit application or at least 90 days  
22 prior to the commencement of construction. Design plans and specifications, except  
23 plans and specifications for concrete-lined manure storage areas having a capacity of  
24 20,000 gallons or less, must be prepared and signed by a design engineer.

25           A. Results and interpretation of a site and soils investigation that includes the  
26 information and requirements in subitems (1) to (10).



1 (1) An analysis of foundation soils for suitability for the proposed manure  
2 storage area including conditions that may lead to failure of constructed dikes or walls.

3 (2) Soil profile information in subitem (5) that must be obtained and recorded at  
4 a minimum of two locations within the boundaries of the proposed manure storage area  
5 for the first one-half acre of surface area. A minimum of one additional location is  
6 required for each additional one acre of surface area for the manure storage area surface  
7 area. Sufficient soil records must be obtained to represent the range of soil conditions  
8 throughout the proposed manure storage area site.

9 (3) Except as required in subitem (4), the information in subitem (5) must be  
10 recorded to a depth of at least five feet below the bottom of the proposed liquid manure  
11 storage area: and to a depth that allows verification of separation to bedrock  
12 requirements in accordance with subpart 2, item B. Each borehole completed under this  
13 item must be sealed throughout the entire depth by a method that will ensure that the  
14 borehole does not become a preferential flow path for vertical groundwater transport.

15 (4) In areas that are susceptible to soil collapse or sinkhole formation, the  
16 information in subitem (5) must be recorded to a depth of at least ten feet below the  
17 bottom of the proposed liquid manure storage area, or until bedrock is encountered.

18 (5) Each soils record must identify the soil texture, depth to the regional water  
19 table, and depth to the seasonal high water table.

20 (6) The soil profile information must be obtained by a method that can identify  
21 abrupt changes in soil texture and sand lenses of ~~one-half inch or greater~~ throughout the  
22 soil profile.

23 (7) In areas susceptible to soil collapse or sinkhole formation, a map of the  
24 proposed site showing the location of all open and filled sinkholes, depression areas in  
25 the landscape, known caves, resurgent springs, disappearing streams, karst windows,  
26 and blind valleys within one-half mile of the proposed site location.

1 (8) An evaluation of potential for groundwater intrusion and damage to the  
2 storage area liner.

3 (9) Where a perimeter drainage tile system is required to control the elevation of  
4 the water table or saturated soils in accordance with item J, the design plans and  
5 specifications for the drain tile system must include provisions to:

6 (a) lower the elevation of the water table or saturated soils to below the  
7 bottom of the manure storage area liner;

8 (b) locate the drainage tile a horizontal distance of at least ~~two feet~~ one foot  
9 outside the footing of a concrete-lined manure storage area;

10 (c) install a dedicated drain tile system for each manure storage area; and

11 (d) install a dedicated tile riser, manhole, or other access which allows  
12 collection of tile-water samples for each dedicated drain tile system.

13 (10) Additional information relating to the proposed manure storage area as  
14 requested by the commissioner to evaluate compliance with federal and state rules.

15 B. The following information if the proposed manure storage area is located in a  
16 Minnesota Department of Health approved drinking water supply management area as  
17 delineated according to chapter 4720:

18 (1) the location of the animal feedlot, manure storage area, and land application  
19 sites on a map of the Minnesota Department of Health approved drinking water supply  
20 management area;

21 (2) a copy of the vulnerability assessment of the drinking water supply  
22 management area from an approved wellhead protection plan according to part  
23 4720.5210, subparts 2 and 3;

24 (3) a description of the vulnerability of the specific sites for manure storage  
25 areas and land application as described in the vulnerability assessment; and

1 (4) a copy of all parts of the drinking water supply management area or source  
2 water protection plan which pertain to animal feedlots, manure storage areas, and land  
3 application of manure.

4 C. The estimated storage capacity by volume and time period based on the volume  
5 of manure, manure-contaminated runoff, and process wastewaters generated.

6 D. In addition to the designed storage volume in item C, allowance for the greater  
7 capacity of the following for manure storage areas open to precipitation or subject to  
8 discharge of runoff into the manure storage area:

9 (1) a volume capacity for precipitation and runoff without overflow for a  
10 25-year, 24-hour or greater precipitation or rainfall event; or

11 (2) a freeboard depth of not less than one foot.

12 E. A plan for a preconstruction conference that includes the design engineer,  
13 contractors, the owner, and the inspector required under subpart 6.

14 F. Specifications for the liquid manure storage area liner according to the  
15 applicable liner design standard identified under subparts 2 and 3.

16 G. When soil is used as a liner material, location and volume of liner soil available,  
17 testing protocol, and predesign test results for soil plasticity index, sieve analysis, and  
18 optimal moisture content.

19 H. A site plan that identifies the locations of predesign soil investigations  
20 conducted under item A relative to the proposed manure storage area.

21 I. Plan details and specifications for all liner penetrations according to subpart 3,  
22 item C.

23 J. Measures for control of water table or saturated soils.

24 K. A quality assurance and quality control plan ~~which~~ that includes specifications  
25 for inspections and ASTM testing methods and frequencies.

1 L. Specifications for liner material protection from damage during construction or  
2 subsequent facility operation resulting from the following:

3 (1) drying and cracking during and after liner construction;

4 (2) manure agitation and pumping;

5 (3) freezing and thawing;

6 (4) hot and cold weather construction;

7 (5) erosion; and

8 (6) other physical damage.

9 M. Special site considerations.

10 N. A plan for operation, periodic inspection, and maintenance of the manure  
11 storage area including schedules and descriptions of:

12 (1) routine inspections, maintenance, and recordkeeping to be completed to  
13 identify and document damage to the liner from the factors listed in item L;

14 (2) methods to be used to repair areas of damaged liner;

15 (3) methods used to monitor the liquid level in the basin to evaluate proper  
16 operation and adequate available storage capacity; and

17 (4) routine inspections of perimeter tile line outlets and inspection manholes to  
18 ensure proper operations of the system.

19 Subp. 5. **Construction and notification requirements.**

20 A. The owner shall construct the manure storage area according to the design  
21 plans and specifications submitted to the commissioner or the county feedlot pollution  
22 control officer. Proposed engineering changes or modifications to the design plans and  
23 specifications, related to the liner specifications, location, depth, or separation distance  
24 to bedrock, must be submitted to the commissioner or county feedlot pollution control  
25 officer prior to commencement of construction related to the proposed change.

1 B. An owner shall notify the commissioner or county feedlot pollution control  
2 officer and the design engineer of intent to construct a minimum of three business days  
3 prior to commencement of construction. Notification must be completed by letter,  
4 telephone, or facsimile and include:

5 (1) the permit number, if applicable;

6 (2) the owner's name, and the name of the facility if different than the owner;

7 (3) the site location by county, township, section, and quarter section;

8 (4) the design engineer's name; and

9 (5) the name of the contractor responsible for installing the liner.

10 C. An owner shall notify the commissioner or county feedlot pollution control  
11 officer within three business days following completion of construction of the manure  
12 storage area liner. Notification for vertical concrete-lined walls under this item must be  
13 completed before backfilling the walls. Notification information must meet the  
14 requirements in item B.

15 D. The owner shall submit a construction report to the commissioner or county  
16 feedlot pollution control officer within 60 days of the completion of any new or  
17 modified manure storage area. The report must be prepared and signed by the design  
18 engineer and must contain an assessment of whether the completed manure storage  
19 area conforms to the design plans and specifications submitted to the commissioner or  
20 county feedlot pollution control officer. The commissioner may require manure removal  
21 from the manure storage area and corrective actions if the construction report indicates  
22 that the completed manure storage area does not conform to the design plans and  
23 specifications.

24 Subp. 6. **Inspections of liquid manure storage areas.** An owner constructing a liquid  
25 manure storage area, except for a concrete-lined manure storage area with a capacity of  
26 20,000 gallons or less, shall have inspections completed during the construction process  
27 which comply with items A to D.

1 A. The inspector must be one or more of the following:

2 (1) a professional engineer licensed in the state of Minnesota or a person  
3 working under the professional engineer's direct supervision;

4 (2) a qualified Natural Resources Conservation Services staff person; or

5 (3) if the manure storage area has a concrete liner, an American Concrete  
6 Institute or Minnesota Department of Transportation concrete field testing technician  
7 grade/level I certified and concrete field inspector level II certified.

8 B. During construction of each manure storage area under this subpart, the  
9 inspector shall record on a form provided by the commissioner, observations related to  
10 conformance to the design plans and specifications and construction standards of the  
11 following:

12 (1) subgrade conditions prior to liner placement including soil texture, strength  
13 and moisture content, and presence of any frozen soils;

14 (2) location and proper functioning of the perimeter drainage tile system, if  
15 required, and inspection/monitoring access;

16 (3) for all concrete-lined manure storage areas:

17 (a) reinforcing steel size, grade, spacing, cover, and that steel is free of loose  
18 rust, oil, or other debris;

19 (b) concrete quality including air entrainment, temperature, and strength, and  
20 water-cement ratio;

21 (c) handling, placement, consolidation, and finishing of concrete;

22 (d) curing and protection of concrete after placement, including hot and cold  
23 weather protective measures;

24 (e) location, forming, and surface preparation of construction, contraction,  
25 and expansion joints;

1 (f) placement of flexible waterstop materials in joints; and

2 (g) application of surface applied or injected crack and joint sealant materials;

3 (4) repair of construction defects; and

4 (5) conformance to the liner penetration prohibitions under subpart 3, item C.

5 C. The contractor responsible for installation of the liner shall certify on a form  
6 provided by the commissioner that the manure storage area was constructed in  
7 conformance with the design plans and specifications and construction standards for all  
8 applicable stages of construction in item B.

9 D. The owner shall ensure that the following information is submitted to the  
10 design engineer for incorporation into the construction report required in subpart 5,  
11 item D:

12 (1) the name and qualifications of the inspector;

13 (2) the inspection form required in item B; and

14 (3) the liner contractor's certification form required in item C.

15 Subp. 7. **Operation and maintenance.** The owner of a manure storage area shall  
16 operate and maintain the manure storage area according to the operation and  
17 maintenance plan submitted in accordance with subpart 4, item N.

18 **7020.2110 UNPERMITTED OR NONCERTIFIED LIQUID MANURE STORAGE**  
19 **AREAS.**

20 Subpart 1. **Schedule for facilities with capable of holding 1,000 animal units or**  
21 **more or construction after June 3, 1991.** An owner that who has a facility capable of  
22 holding 1,000 or more animal units; and who uses an unpermitted or noncertified liquid  
23 manure storage area, or that who uses an unpermitted or noncertified liquid manure  
24 storage area for which construction commenced after June 3, 1991, shall, by October 1,  
25 2001:

1 A. reconstruct the manure storage area according to part 7020.2100;

2 B. complete closure of the manure storage area according to part 7020.2025 and  
3 notify the commissioner or county feedlot pollution control officer at least three days  
4 prior to the date when the manure storage area will be closed. Notification must be  
5 completed by letter, telephone, or facsimile and include:

6 (1) the permit number, if applicable;

7 (2) the owner's name, and the name of the facility if different than the owner;

8 (3) the site location by county, township, section, and quarter section; and

9 (4) the dates when closure will take place; or

10 C. except as provided in item D, submit a copy of the original design plans and  
11 specifications for the manure storage area that were prepared by a design engineer prior  
12 to the actual time of construction and a construction certification report signed by a  
13 design engineer that certifies that the liquid manure storage area was designed and  
14 constructed according to applicable rules and regulations and standard engineering  
15 principles and practices at the time of construction;

16 D. if the original plans and specifications for a Natural Resources Conservation  
17 Service (NRCS) or Soil Conservation Service (SCS) designed liquid manure storage area  
18 are no longer available, the owner must submit a certification by the manager of the  
19 NRCS office which was responsible for the design and oversight of the project, that the  
20 project was constructed according to the NRCS or SCS design plans and specifications  
21 and construction oversight; or

22 E. conduct and submit the results of a water balance test that demonstrate the  
23 manure storage area is properly sealed to achieve a seepage rate of 1/56 inch per day or  
24 less.

25 Subp. 2. Schedule for facilities with capacity to hold fewer than 1,000 animal units.



1 Except as required in subpart 1 or as provided in subpart 3, an owner ~~that~~ who uses an  
2 unpermitted or noncertified liquid manure storage area ~~and has~~ with the capacity to  
3 hold fewer than 1,000 animal units or the manure produced by fewer than 1,000 animal  
4 units shall, by October 1, ~~2003~~ 2005:

5 A. complete one of the provisions under subpart 1, items A to C; or

6 B. ~~the owner shall~~ have a design engineer or professional soil scientist licensed in  
7 the state of Minnesota conduct a soils investigation and submit a soils investigation  
8 report to the commissioner or county feedlot pollution control officer that complies with  
9 the following:

10 (1) the soils report must demonstrate that the liquid manure storage area meets  
11 Minnesota Natural Resources Conservation Service Practice Standard, Code No. 425,  
12 November 1991, or Code No. 313, January 1998, design and construction criteria for:

13 (a) sealing and lining waste storage ponds;

14 (b) vertical separation to groundwater; and

15 (c) vertical separation to bedrock;

16 (2) the soil profile information in subitem (5) must be obtained and recorded for  
17 at least two equally spaced locations around the perimeter of the liquid manure storage  
18 area for each quarter acre of manure storage surface area or portion thereof, and be  
19 within a horizontal distance of not more than 50 feet outside the top of the manure  
20 storage area sidewall;

21 (3) except as required in subitem (4), the information in subitem (5) must be  
22 recorded to a depth of at least five feet below the bottom of the liquid manure storage  
23 area;

24 (4) in areas that are susceptible to soil collapse or sinkhole formation, the  
25 information in subitem (5) must be recorded to a depth of at least ten feet below the  
26 bottom of the liquid manure storage area, or until bedrock is encountered;

1 (5) each soils record must identify the soil texture, depth to the regional water  
2 table, and depth to the seasonal high water table; and

3 (6) the soil profile information must be obtained by a method that can identify  
4 abrupt changes in soil texture and sand lenses of one-half inch or greater throughout the  
5 soil profile.

6 Subp. 3. **Schedule for open lot feedlots with fewer than 300 animal units.** Owners  
7 meeting the eligibility requirements under part 7020.2003, subpart 4, that must complete  
8 closure or reconstruction of the manure storage area according to subpart 1, item A or B,  
9 shall comply with items A and B.

10 A. By October 1, ~~2003~~ 2005, the owner shall notify the commissioner or county  
11 feedlot pollution control officer that the manure storage area will be closed or  
12 reconstructed by October 1, ~~2009~~ 2010. Notification must be completed by letter,  
13 telephone, or facsimile and also include:

14 (1) the owner's name, and the name of the facility if different than the owner;  
15 and

16 (2) the site location by county, township, section, and quarter section.

17 B. By October 1, ~~2009~~ 2010, the owner shall complete closure or reconstruction.

18 **7020.2120 POULTRY BARN FLOORS.**

19 Subpart 1. **General.** This part describes the requirements for construction and  
20 recordkeeping for poultry barn floors. Owners of poultry barns at which abandonment  
21 of the facility exposes the barn floor shall remove and land apply all manure and  
22 manure-contaminated soil according to part 7020.2225.

23 Subp. 2. **Construction requirements for concrete-lined or asphalt-lined floors.** All  
24 new concrete-lined or asphalt-lined poultry barn floors must be constructed and  
25 maintained according to the following:

1 A. the floor thickness must be a minimum of 3.5 inches for concrete and a  
2 minimum of two inches for asphalt;

3 B. the floors must be inspected by the owner or operator after each cleaning of the  
4 poultry barn floors; and

5 C. cracks and joints, which may extend through the concrete-lined or asphalt-lined  
6 floor, must be sealed.

7 Subp. 3. **Construction requirements for soil-lined floors.** All new soil-lined poultry  
8 barn floors must be constructed and maintained according to items A to E.

9 A. The completed thickness of the constructed soil liner must be:

10 (1) 12 inches or more of compacted soil; or

11 (2) eight inches or more of compacted soil placed over an underlayment that  
12 consists of:

13 (a) three inches of sand consisting of at least 80 percent particles passing a  
14 number 4 sieve, less than ten percent particles passing a number 200 sieve, and no  
15 particles greater than one inch. Particle size analyses must be performed according to  
16 ASTM D-422; or

17 (b) a geo-textile fabric that weighs at least 12 ounces per square yard and has  
18 a minimum hydraulic conductivity of 0.30 cm/sec.

19 B. Soils used for construction of the floor must meet the following requirements:

20 (1) have at least 30 percent particles passing a number 200 sieve, less than 20  
21 percent retained on a number 4 sieve, and no rocks greater than three inches in  
22 diameter. Particle size analyses must be performed according to ASTM D-422;

23 (2) have a plasticity index greater than seven percent according to ASTM  
24 D-4318;

25 (3) be placed in a minimum of two lifts, each lift being a minimum of four inches  
26 of in-place thickness;

1 (4) be maintained at a moisture content of zero to five percent above optimum  
2 as determined by ASTM D-698 or ASTM D-1557 during construction; and

3 (5) be compacted:

4 (a) with at least three passes of a sheepsfoot or padfoot-type compaction  
5 equipment with feet that extend through the loose lift of soil into the previous lift; or

6 (b) until achievement of 90 percent of standard proctor density. The density  
7 must be verified according to ASTM 2922, at a frequency of one sample per 3,000 square  
8 feet.

9 C. The poultry barn floor must be placed at least three feet above bedrock or the  
10 water table.

11 D. The soil liner must be refurbished with at least a two-inch lift of soils meeting  
12 the requirements of item B, prior to the floor thickness being diminished by two inches  
13 from the thickness required in item A.

14 E. Cracks that may extend through the floor must be repaired.

15 F. The floor must not be saturated at any time during the service life of the floor.

16 **Subp. 4. Construction requirements for polyvinyl chloride (PVC) lined floors.**

17 A. A seamless or factory seamed PVC liner having a thickness of not less than 30  
18 mils must be placed at a depth of at least six inches below the final elevation of the  
19 poultry barn floor.

20 B. The upper six inches of the floor must be constructed of protective material that  
21 meets manufacturer's recommendations and provides adequate protection of the PVC  
22 liner. This protective layer must not consist of any particles that will inflict damage to  
23 the liner.

24 **Subp. 5. Recordkeeping.** The owner shall record and retain on permanent file the  
25 results of all testing required in subpart 3 and make these records available to the  
26 commissioner or county feedlot pollution control officer upon request.

1 Subp. 6. **Notifications of construction.** An owner shall notify the commissioner or  
2 county feedlot pollution control officer of intent to construct a minimum of three  
3 business days prior to commencement of construction and within three business days  
4 following completion of construction. Notification must be completed by letter,  
5 telephone, or facsimile and include:

6 A. the permit number, if applicable;

7 B. the owner's name, and the name of the facility if different than the owner;

8 C. the site location by county, township, section, and quarter section; and

9 D. the name of the contractor responsible for installing the floor.

#### 10 **7020.2125 MANURE STOCKPILING SITES.**

11 Subpart 1. **General.** This part describes requirements for permitting, design,  
12 construction, location, operation, and maintenance of short-term and permanent  
13 stockpiling sites. Stockpiling sites must comply with part 7020.2005 and items A to D.

14 A. Manure stockpiling sites must be located and constructed such that  
15 manure-contaminated runoff from the site does not discharge to waters of the state.

16 B. Manure must not be placed on a stockpiling site unless a three-to-one  
17 horizontal-to-vertical ratio can be maintained or the manure has, at least, a 15 percent  
18 solids content.

19 C. The use of rock quarries, gravel or sand pits, bedrock, and any mining  
20 excavation sites for stockpiling manure is prohibited.

21 D. The size of a short-term stockpile must not exceed a volume based on  
22 agronomic needs of the crops on 320 acres of fields and must not exceed the agronomic  
23 needs of the crops on the tract of land on which the stockpile is to be applied. The  
24 agronomic needs of the crops must comply with the application rates in part 7020.2225.

25 Subp. 2. **Additional requirements for short-term stockpiling.** By October 1, 2001, all  
26 short-term stockpile sites must:

**7020.2125**

1 A. ~~have the manure removed from the site within 180 calendar days of the date~~  
2 ~~from when the stockpile is initially established and land applied in accordance with part~~  
3 ~~7020.2225, unless weather and soil conditions prohibit land application of the manure~~  
4 ~~and the owner complies with the following:~~

5 ~~(1) the owner shall land apply the manure in accordance with part 7020.2225~~  
6 ~~within one year of the date when the stockpile was initially established; and~~

7 ~~(2) prior to the end of the 180-day period identified in this item, the owner shall~~  
8 ~~submit to the commissioner or county feedlot pollution control officer, on a form~~  
9 ~~provided by the commissioner, a short-term stockpile extension notification which~~  
10 ~~identifies:~~

11 ~~(a) the weather and soil conditions that prevented the removal and land~~  
12 ~~application of the manure within the 180-day period; and~~

13 ~~(b) the location of each short-term stockpile that will remain after the 180-day~~  
14 ~~period;~~

15 B. ~~except for a site located within the confines of an animal feedlot containing less~~  
16 ~~than 100 animal units of hooved animals, not be used during the calendar year~~  
17 ~~preceding or following the calendar year in which the site is used. have a vegetative~~  
18 ~~cover must be established on the site for at least one full growing season prior to reuse;~~  
19 ~~as a short-term stockpiling site except for the following:~~

20 ~~(1) sites located within the confines of a hoofed-animal open lot at a facility~~  
21 ~~having the capacity to hold fewer than 100 animal units; and~~

22 ~~(2) sites where manure is stockpiled for fewer than ten consecutive days and no~~  
23 ~~more than six times per calendar year;~~

24 C. not be located within:

25 (1) 300 feet of flow distance and at least 50 feet horizontal distance, to waters of

1 the state, sinkholes, rock outcroppings, open tile intakes, and any uncultivated wetlands  
2 which are not seeded to annual farm crops or crop rotations involving perennial grasses  
3 or forages;

4 (2) 300 feet of flow distance to any road ditch that flows to the features  
5 identified in subitem (1) or 50 feet of any road ditch where subitem (1) does not apply;

6 (3) 100 feet of any private water supply or ~~abandoned~~ unused and unsealed well  
7 and 200 feet from any private well with less than 50 feet of watertight casing and that is  
8 not cased through a confining layer at least ten feet thick; and

9 (4) 100 feet from field drain tile that ~~are~~ is three feet or less from the soil surface;

10 D. maintain a minimum distance of two feet between the base of the stockpile and  
11 the seasonal high water table or saturated soils, as identified in the most recent  
12 USDA/NRCS soil survey manual or based on a site-specific soils investigation; and

13 E. be prohibited:

14 (1) on land with greater than six percent slope;

15 (2) on land with slopes between two and six percent, except where clean water  
16 diversions and erosion control practices are installed; and

17 (3) on soils where the soil texture to a depth of five feet is coarser than a sandy  
18 loam as identified in the most recent USDA/NRCS soil survey manual or based on a  
19 site-specific soils investigation.

20 Subp. 3. **Recordkeeping for short-term stockpile sites.** The owner of the short-term  
21 stockpile site shall maintain records for each stockpile site containing the information in  
22 items A to E. Records must be kept on file for at least three years for all short-term  
23 stockpiling by the owner of the animal feedlot at which the manure was produced and  
24 be made available to the commissioner or county feedlot pollution control officer upon  
25 request. The records must include:

- 1 A. the location of the stockpile;
- 2 B. the date on which each stockpile was established;
- 3 C. the volume of manure stockpiled;
- 4 D. the nutrient analysis of the manure; and
- 5 E. when the stockpiled manure was land applied.

6 Subp. 4. **Additional requirements for permanent stockpile sites.** By October 1, 2001,  
7 all permanent stockpile sites must comply with this part. The owner shall also install a  
8 liquid manure storage area according to part 7020.2100 to collect and contain  
9 manure-contaminated runoff, if necessary to comply with the requirements of part  
10 7020.2003. An owner shall submit a permit application, as applicable, under part  
11 7020.0405, subpart 1.

12 A. The owner shall comply with part 7020.2005.

13 B. The stockpile site liner must:

14 (1) have a completed thickness of at least two feet and be constructed of soils  
15 having a hydraulic conductivity of  $1 \times 10^{-7}$  cm/sec or less upon completion of  
16 construction; or

17 (2) have other liner materials which achieve a hydraulic conductivity less than 1  
18  $\times 10^{-7}$  cm/sec.

19 C. The site must be constructed using diversion structures, elevated platform  
20 construction, or other devices to prevent surface waters from entering and passing  
21 through the stockpile site. Where upgradient slopes are greater than two percent, clean  
22 water diversions must be constructed that surround at least the three upgradient sides  
23 of the stockpile site. Diversions must be of sufficient height to prevent outside water  
24 from passing over them during snowmelt or rainfall events less than the 25-year,  
25 24-hour storm event.



1 D. A permanent stockpile site must be operated and maintained in a manner so as  
2 to protect the integrity and structural reliability of the manure storage area.

3 E. An owner shall notify the commissioner or county feedlot pollution control  
4 officer of intent to construct a minimum of three days prior to commencement of  
5 construction and within three days following completion of construction. Notification  
6 must be completed by letter, telephone, or facsimile and include:

7 (1) the permit number, if applicable;

8 (2) the owner's name, and the name of the facility if different than the owner;

9 (3) the site location by county, township, section, and quarter section; and

10 (4) the name of the contractor responsible for installing the permanent stockpile  
11 liner.

12 F. The owner shall comply with subpart 2, item D.

### 13 7020.2150 MANURE COMPOST SITES.

14 Subpart 1. **General.** An owner composting only manure at a manure compost site  
15 shall comply with subparts 2 and 3. An owner composting manure and solid wastes  
16 shall comply with part 7035.2836, subparts 4 to 7. An owner composting dead animals  
17 shall comply with part 1719.4000.

18 Subp. 2. **Operational requirements.** An owner of a manure compost site meeting the  
19 requirements of subpart 1 shall comply with items A to C.

20 A. The owner shall comply with part 7020.2125.

21 B. If operating a compost site under part 7020.2125, subparts 1 to 3, the owner shall  
22 comply with part 7020.2125, subpart 4, item C.

23 C. The owner shall produce finished compost by a process to further reduce  
24 pathogens (PFRP). The temperature and retention time for the material being  
25 composted must be monitored and recorded each day. The owner shall comply with  
26 one of the PFRP methods in subitems (1) to (3).

1 (1) The windrow method for reducing pathogens consists of an unconfined  
2 composting process involving periodic aeration and mixing. Aerobic conditions must be  
3 maintained during the compost process. A temperature of 55 degrees Celsius must be  
4 maintained in the windrow for at least three weeks. The windrow must be turned at  
5 least once every three to five days.

6 (2) The static aerated pile method for reducing pathogens consists of an  
7 unconfined composting process involving mechanical aeration of insulated compost  
8 piles. Aerobic conditions must be maintained during the compost process. The  
9 temperature of the compost pile must be maintained at 55 degrees Celsius for at least  
10 seven days.

11 (3) The enclosed vessel method for reducing pathogens consists of a confined  
12 compost process involving mechanical mixing of compost under controlled  
13 environmental conditions. The retention time in the vessel must be at least 24 hours  
14 with the temperature maintained at 55 degrees Celsius. A stabilization period of at least  
15 seven days must follow the enclosed vessel retention period. Temperature in the  
16 compost pile must be maintained at least at 55 degrees Celsius for three days during the  
17 stabilization period.

18 Subp. 3. **Recordkeeping and reporting requirements.** An owner of a manure  
19 compost site that is required to apply for and obtain a permit under part 7020.0405,  
20 subpart 1, item A or B, must:

21 A. analyze mature manure compost and maintain records of the results for:

22 (1) pH;

23 (2) moisture content;

24 (3) particle size;

25 (4) NPK ratio; and

1 (5) soluble salt content; and

2 B. if the owner's NPDES or SDS permit requires submittal of an annual report,  
3 include the following information in the annual report:

4 (1) the quantities and sources of manure and bulking agents delivered to the  
5 facility;

6 (2) temperature and retention time data for all compost produced; and

7 (3) the information recorded under item A.

8 **7020.2225 LAND APPLICATION OF MANURE.**

9 Subpart 1. **In general.**

10 A. Manure and process wastewater must not be applied to land in a manner that  
11 will:

12 (1) result in a ~~manure~~ discharge to waters of the state during the application  
13 ~~process of applying manure~~, except that manure and process wastewater application is  
14 allowed onto seasonally saturated soils that are seeded to annual farm crops or crop  
15 rotations of perennial grasses or legumes; or

16 (2) cause pollution of waters of the state due to manure-contaminated runoff.

17 B. Manure and process wastewater application into road ditches is prohibited.

18 C. All manure and process wastewater applications to land must meet the  
19 requirements of this part except where specifically exempted.

20 D. When ownership of manure or process wastewater is transferred from an  
21 animal feedlot with capacity of 300 or more animal units or a manure storage area  
22 capable of holding the manure produced by 300 or more animal units for application to  
23 land not owned or leased by the owner of ~~an~~ the animal feedlot or the manure storage  
24 area ~~with 100 or more animal units~~, any person receiving the manure or the process  
25 wastewater shall:

1 (1) comply with the manure management plan completed by the owner of the  
2 animal feedlot where the manure or process wastewater was produced; and

3 (2) complete the manure management plan requirements in subpart 4, item D,  
4 except for provisions that were completed by the owner of the animal feedlot where the  
5 manure or process wastewater was produced.

6 Subp. 2. **Manure nutrient testing requirements.** Manure from all manure storage  
7 areas ~~and stockpile sites~~ storing manure produced from more than 100 animal units  
8 must be tested by the owner of the animal feedlot for nitrogen and phosphorus content  
9 ~~according to~~ in accordance with items A to E, except that item A is not required for  
10 manure storage areas storing manure produced by fewer than 300 animal units.

11 A. For manure storage areas storing manure from 300 or more animal units, the  
12 manure must initially be tested once per year for at least three years.

13 B. Manure must be ~~tested during subsequent years~~ retested following changes in  
14 conditions affecting manure nutrient content including unusual climatic conditions, or  
15 changes in manure storage and handling, livestock types, or livestock feed.

16 C. Ongoing ~~manure nutrient~~ testing must continue at least once every four years  
17 unless more frequent testing is required under item B or in a permit.

18 D. The nutrient analysis must be conducted using a laboratory certified by the  
19 Minnesota Department of Agriculture or commissioner-approved on-farm sampling  
20 and analysis.

21 E. ~~Manure~~ Sampling must be conducted so that a representative sample is  
22 obtained in accordance with University of Minnesota Extension Service  
23 recommendations.

24 Subp. 3. **Nutrient application rate standards.** Items A and B apply to all manure and  
25 process wastewater application sites. Item C applies only to animal feedlots with a  
26 capacity of 300 or more animal units and manure storage areas capable of holding the  
27 manure produced by 300 or more animal units.

1 A. Manure and process wastewater application rates must be limited as described  
2 in subitems (1) to (3) so that the estimated plant available nitrogen from all nitrogen  
3 sources does not exceed expected crop nitrogen needs for nonlegume crops and  
4 expected nitrogen removal for legumes.

5 (1) Expected crop nitrogen needs, crop nitrogen removal rates, and estimated  
6 plant available nitrogen from manure and legumes must be based on the most recent  
7 published recommendations of the University of Minnesota Extension Service published  
8 recommendations or of another land grant college in a contiguous state.

9 (2) Estimated plant available nitrogen from organic nitrogen sources, including  
10 manure, may deviate up to 20 percent from University of Minnesota Extension Service,  
11 or of another land grant college in a contiguous state, estimates where site nutrient  
12 management history, soil conditions, or cool weather warrant additional nitrogen  
13 application. When crop nitrogen deficiencies are visible or measured, remedial nitrogen  
14 applications above the 20 percent deviation can be made.

15 (3) Nitrogen sources include commercial fertilizer nitrogen, soil organic matter,  
16 irrigation water, legumes grown during previous years, biosolids, process wastewater,  
17 and manure applied for the current year and previous years.

18 B. Manure Nutrient application to rate standards for land in special protection  
19 areas must ~~also comply with~~ meet the requirements in subpart 6, item B, subitem (2), if  
20 applicable.

21 C. For land receiving manure or process wastewater from animal feedlots capable  
22 of holding 300 or more animal units or manure storage areas capable of holding the  
23 manure produced by 300 or more animal units, soil samples from the upper six inches  
24 must be collected at a minimum frequency of once every four years and analyzed for  
25 phosphorus using the Bray P1 or Olsen test. If soil phosphorus levels exceed the levels  
26 in subitems (1) and (2), then the owner must complete a manure management plan in

1 accordance with subpart 4, item D, and submit it with a permit application to the  
2 agency or delegated county for review in accordance with subpart 4, item B, subitem (1).

3 (1) Fields in special protection areas or within 300 feet of open tile intakes that  
4 have an average soil phosphorus test level exceeding 75 ppm using the Bray P1 test or  
5 60 ppm using the Olsen test.

6 (2) Fields outside the special protection areas and more than 300 feet from open  
7 tile intakes that have an average soil phosphorus test level exceeding 150 ppm using the  
8 Bray P1 test or 120 ppm using the Olsen test.

9 **Subp. 4. Manure management plan requirements.** Item A indicates who must  
10 prepare a manure management plan and when the plan must be prepared. Item B lists  
11 when manure management plans must be submitted to the agency or delegated county  
12 for review. Item C describes when the manure management plan must be reviewed and  
13 revised. Item D lists the required elements of a manure management plan. Item E  
14 describes exceptions to manure management plans when manure ownership is  
15 transferred.

16 A. An owner or operator of an animal feedlot ~~with 100 or more animal units~~ shall  
17 prepare and retain on file a manure management plan that complies with item D  
18 according to the following schedule:

19 (1) upon application for an NPDES, SDS, interim, or construction short-form  
20 permit for a facility capable of holding 100 or more animal units;

21 (2) an owner ~~with~~ of an animal feedlot capable of holding 300 or more animal  
22 units that is not required to obtain an NPDES, SDS, interim, or construction short-form  
23 permit shall prepare or update a manure management plan ~~by October 1, 2002;~~ prior to  
24 January 1, 2005, when a manure management plan does not meet the requirements of  
25 this part or reflect current operations and the manure is applied by someone other than  
26 a commercial animal waste technician or a certified private manure applicator; and

1           (3) ~~an owner with 100 or more and fewer than 300 animal units shall prepare a~~  
2 ~~manure management plan by October 1, 2005; and~~

3           (4) ~~the owner of a new or expanded animal feedlot or manure storage area that~~  
4 ~~has 300 animal units or more after October 1, 2002, or that has 100 animal units or more~~  
5 ~~after October 1, 2005, shall prepare a manure management plan within one year of~~  
6 ~~exceeding the applicable animal unit threshold once a manure management plan is~~  
7 ~~required for a facility, a plan that meets the requirements under this subpart must be~~  
8 ~~retained on file at the animal feedlot or manure storage area.~~

9           B. A manure management plan that complies with the requirements of item D  
10 ~~must be on file at the animal feedlot or manure storage area and submitted to the~~  
11 ~~commissioner or delegated county in accordance with the schedule in item A when any~~  
12 ~~one of the following conditions applies:~~

13           (1) when an owner submits a permit application to the commissioner for an  
14 ~~NPDES or, SDS permit, or an interim permit under part 7020.0405, subpart 1, item C,~~  
15 ~~subitem (2); or~~

16           (2) ~~when manure is to be applied to fields in special protection areas or within~~  
17 ~~300 feet of open tile intakes and that:~~

18           (a) ~~have average soil phosphorus test levels exceeding 75 ppm using the Bray~~  
19 ~~P1 test or 60 ppm using the Olsen test; or~~

20           (b) ~~have slopes that exceed six percent;~~

21           (3) ~~when manure is to be applied to fields outside of special protection areas~~  
22 ~~that have average soil phosphorus test levels exceeding 150 ppm using the Bray P1 test~~  
23 ~~or 120 ppm using the Olsen test, then the manure management plan must be submitted~~  
24 ~~prior to the dates in item A, subitems (2) and (3); and~~

25           (4) ~~the manure management plan is requested by the commissioner or county~~  
26 ~~feedlot pollution control officer.~~

1 C. The manure management plan must be reviewed by the owner each year and  
2 adjusted for any changes in the amount of manure production, manure nutrient test  
3 results, fields available for receiving manure, crop rotations, or other practices which  
4 affect the available nutrient amounts or crop nutrient needs on fields receiving manure.

5 D. Except as provided in item E, the manure management plan must contain:

6 (1) a description of the manure storage/handling system and the expected  
7 annual amount of manure and ~~manure~~ nutrients which will need to be land applied;

8 (2) application methods, equipment, and calibration procedures;

9 (3) acreage available for manure and process wastewater application including  
10 maps or aerial photos showing field locations and acreage available for applying  
11 manure areas within the fields that are suitable for manure or process wastewater  
12 application;

13 (4) a description of ~~manure~~ nutrient testing methods and frequency and the  
14 expected nutrient content of the manure to be applied;

15 (5) planned manure application rates and assumptions used to determine these  
16 rates, including assumptions of crop nitrogen and phosphorus needs and nitrogen and  
17 phosphorus supplied from all manure and nonmanure sources;

18 (6) total ~~manure~~ nitrogen and phosphorus rates amounts from manure and  
19 nonmanure sources to be applied per acre on each field and for each crop in the rotation  
20 when applied in accordance with the planned manure or process wastewater  
21 application rates established under subitem (5);

22 (7) expected first and second year plant available nutrients from the manure and  
23 process wastewater;

24 (8) expected months of application;

25 (9) a description of protective measures ~~as described in this subitem~~ to minimize



1 the risk of surface water and groundwater contamination when applying manure or  
2 process wastewater in a floodplain, special protection area, soils with less than three feet  
3 above limestone bedrock, drinking water supply management areas where the aquifer is  
4 designated vulnerable under chapter 4720, and land within 300 feet of all surface tile  
5 intakes, sinkholes without constructed diversions, and uncultivated wetlands.  
6 Protective measures include, but are not limited to, soil and water conservation  
7 measures, timing of application, methods of application, manure application rates, and  
8 frequency of application;

9 (10) for application onto frozen or snow-covered soil, the following information  
10 about the fields ~~which~~ that may receive the manure or process wastewater:

11 (a) field location;

12 (b) land slopes;

13 (c) proximity of fields to surface waters;

14 (d) expected months of application for each field; and

15 (e) tillage and other conservation measures used to minimize risk of  
16 manure-contaminated runoff;

17 ~~(11) Bray P1 or Olsen soil phosphorus test results from soil samples taken in the~~  
18 ~~upper six inches of soil for all fields receiving manure. The soil phosphorus test results~~  
19 ~~must have been taken within four years from the time of preparing or updating the~~  
20 ~~manure management plan;~~

21 ~~(12) a description of how phosphorus from manure is to be managed to~~  
22 ~~minimize phosphorus transport to surface waters resulting from soil phosphorus~~  
23 ~~build-up to levels stated in item A, subitems (2) and (3), or which are otherwise more~~  
24 ~~specifically defined by the University of Minnesota Extension Service as levels that will~~  
25 ~~likely lead to surface water or groundwater quality degradation for different types of~~  
26 ~~soils, soil management, and locations, and as published by the agency in the State~~  
27 ~~Register described in subpart 3, item C;~~

1           ~~(13)~~ (12) plans for soil nitrate testing in accordance with University of Minnesota  
2 Extension Service recommendations; and

3           ~~(14)~~ (13) type of cover crop to be planted when manure is to be applied in June,  
4 July, or August to fields that have been harvested and would otherwise not have active  
5 growing crops for the remainder of the growing season.

6           E. When ownership of manure from an animal feedlot capable of holding 300 or  
7 more animal units or a manure storage area capable of holding the manure produced by  
8 300 or more animal units is to be transferred for application to fields not owned or  
9 leased by the owner of the animal feedlot or manure storage area, the owner of the  
10 animal feedlot where the manure was produced need not include the requirements in  
11 item D, subitems (3), (5) to (7), and (10), ~~and (11)~~ in the owner's manure management  
12 plan. Any person receiving the manure shall comply with subpart 1, item C.

13           Subp. 5. **Recordkeeping.** Item A establishes the length of time that records must be  
14 kept. Items B and C indicate the information needed in records depending on the size  
15 and location of the facility.

16           A. Any person applying or receiving manure or process wastewater from a facility  
17 with capable of holding 100 or more animal units shall maintain records of the amount  
18 of manure or process wastewater application on file, ~~which include all nutrient~~  
19 ~~additions for the cropland where the manure is applied:~~

20           (1) for the most recent six years for manure or process wastewater application  
21 within special protection areas; and

22           (2) for the most recent three years on land not covered under subitem (1).

23           B. ~~Cropland management~~ For an animal feedlot capable of holding 300 or more  
24 animal units or a manure storage area capable of holding the manure produced by 300  
25 or more animal units, or where manure or process wastewater is applied from an  
26 animal feedlot capable of holding 100 or more animal units or a manure storage area

1 capable of holding the manure produced by 100 or more animal units in a drinking  
2 water supply management area where the aquifer is designated vulnerable under  
3 chapter 4720, records kept in accordance with item A must contain the following  
4 information:

5 (1) field locations and cropland acreage where manure is applied;

6 (2) volume or tonnage of manure applied on each field;

7 (3) manure test nitrogen and phosphorus content, as required by subpart 2;

8 (4) dates of application;

9 (5) dates of manure incorporation when incorporating within ten days;

10 (6) expected plant-available amounts of nitrogen and phosphorus released from  
11 manure and commercial fertilizers on each field where manure is applied;

12 (7) a description of changes to the manure management plan, including  
13 documentation of the justification for any remedial nitrogen applications that exceed the  
14 nitrogen rate standard in subpart 3; and

15 (8) soil nutrient test results.

16 C. For an animal feedlot or a manure storage area with a capacity of 100 or more  
17 animal units and fewer than 300 animal units, where manure or process wastewater will  
18 not be applied in a drinking water supply management area in which the aquifer is  
19 designated vulnerable under chapter 4720, records kept in accordance with item A must  
20 contain the following:

21 (1) information necessary to credit the nitrogen available for crop growth that is  
22 supplied by manure and process wastewater applications; and

23 (2) manure and process wastewater test results for nitrogen and phosphorus  
24 content, if required in subpart 2.

25 D. Where manure or process wastewater from animal feedlots or manure storage

1 areas with a capacity of 300 or more animal units is transferred for application to fields  
2 not owned or leased by the owner of the animal feedlot which produced the manure,  
3 the owner of the animal feedlot or the manure storage area from which ~~produced~~ the  
4 manure is produced, must meet the following requirements:

5 (1) the manure and process wastewater records for the most recent three years  
6 must be kept on file and must contain the following information:

7 (a) the volume or tonnage of manure or process wastewater delivered;

8 (b) the nutrient content of the manure or process wastewater delivered;

9 (c) the name and address of any commercial hauler or applicator who  
10 received the manure or process wastewater; and

11 (d) the location where the manure or process wastewater was applied and  
12 rate of application; and

13 (2) commercial applicators spreading manure or process wastewater onto land  
14 not owned or leased by the owner of the animal feedlot or the manure storage area from  
15 which ~~produced~~ the manure or process wastewater is produced shall keep records, in  
16 accordance with subitem (1). A copy of these records must be submitted to the owner of  
17 the animal feedlot or the manure storage area from which ~~produced~~ the manure or  
18 process wastewater is produced no later than 60 days following land application.

19 Subp. 6. **Manure and process wastewater application requirements in special**  
20 **protection areas.**

21 A. Manure or process wastewater must not be applied to frozen or snow-covered  
22 soils in special protection areas.

23 B. Manure or process wastewater applied to unfrozen soils in special protection  
24 areas must comply with subitem (1) ~~or~~, (2), or (3).

25 (1) A vegetative buffer must be maintained that:

- 1 (a) consists of perennial grasses or forages;
- 2 (b) is a minimum of 100 feet wide along lakes and perennial streams and 50
- 3 feet wide in other special protection areas; and
- 4 (c) does not receive manure applications from any animal feedlot or manure
- 5 storage area.

6 (2) The following practices must be complied with:

- 7 (a) ~~manure must not be applied~~ no application within 25 feet of the protected
- 8 water, protected wetland, intermittent stream, or drainage ditch in the special protection
- 9 area;
- 10 (b) ~~manure must be injected~~ inject or ~~incorporated~~ incorporate within 24
- 11 hours and prior to rainfall; and
- 12 (c) ~~manure must be applied~~ apply at a rate and/or frequency which will not
- 13 allow soil phosphorus levels to increase over any six-year period with the following
- 14 exception: soil phosphorus may be increased to 21 ppm (Bray P1) or 16 ppm (Olsen)
- 15 when soil testing indicates soil phosphorus test concentrations are less than these
- 16 values.

17 (3) Other agency-approved practices must be implemented that have been

18 demonstrated through research by a land grant college to provide an equal degree of

19 water quality protection as the measures in subitems (1) and (2).

20 C. Manure and process wastewater application by a traveling gun, center pivot, or

21 other irrigation equipment that allows liquid application of manure to travel more than

22 50 feet in the air is prohibited in special protection areas.

23 Subp. 7. **Manure and process wastewater application for land within 300 feet of**

24 **open tile intakes.** Manure and process wastewater applied within 300 feet of open tile

25 intakes, and where manure-contaminated runoff may flow into the open tile intake,

26 must be injected or incorporated within 24 hours of application according to the

7020.2225

1 schedule in items A and B unless other agency-approved water quality protection  
2 management practices are implemented ~~in this 300-foot zone~~ in accordance with item C.

3 A. All liquid manure and process wastewater applied within 300 feet of open tile  
4 intakes must be injected or incorporated within 24 hours of application from the date  
5 this part becomes effective.

6 B. All ~~types of~~ manure and process wastewater applied within 300 feet of open tile  
7 intakes must be injected or incorporated within 24 hours of application ~~by~~ when applied  
8 after October 1, 2004 2005.

9 C. Other agency-approved practices must be implemented that have been  
10 demonstrated through research by a land grant college to provide an equal degree of  
11 water quality protection as injection or incorporation within 24 hours.

12 Subp. 8. Manure and process wastewater application near sinkholes, mines,  
13 quarries, and wells.

14 A. Manure and process wastewater must not be applied to land within 50 feet of  
15 an active or inactive water supply well, sinkhole, mine, or quarry.

16 B. Manure and process wastewater must be incorporated within 24 hours of  
17 surface application when applied to land that slopes towards a sinkhole and is less than  
18 300 feet from the sinkhole except that no setback incorporation is necessary where  
19 diversions prevent manure-contaminated runoff from entering the sinkhole.

20 **REPEALER.** Minnesota Rules, parts 7020.0100; 7020.0300, subparts 7 and 20; 7020.0400;  
21 7020.0500; 7020.0600; 7020.0700; 7020.0800; 7020.0900; and 7020.1600, subparts 3, 4, and  
22 5, are repealed.