

INSPECTION CHECKLIST APPENDICES

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****NOTE: If you do not have a duplicating printer (prints double-sided), you will get blank pages printing out between some of the appendices. These pages were inserted so the duplicating printers print out each appendix correctly. You are not missing any information and you can remove these pages before putting the appendices in the provided binder.****

APPENDIX 1

Registration Requirements

Minnesota Rule 7020.0350. Registration Requirements				
	YES	NO	Rule Citation	Description
1-1			7020.0350 Subp.2. A. (1) & (2)	Is the facility required to register? (1) An animal feedlot capable of holding 50 or more animal units, or a manure storage area capable of holding the manure produced by 50 or more animal units. OR (2) An animal feedlot capable of holding ten or more and fewer than 50 animal units, or a manure storage area capable of holding manure produced by ten or more and fewer than 50 animal units, that is located in shoreland.
1-2			7020.0350 Subp.3.	If the answer to question 1-1 is "Yes", is the facility registered? (1) Using a form provided by the MPCA. OR (2) Submission of a permit application to the MPCA or delegated county.
1-3			7020.0350 Subp.1. A-J.	Did the registration form include the following information: (1) The date the registration form was completed? (2) The name and address of all owners of the animal feedlot, manure storage area, or pasture? (3) The facility location according to township, county, section, and quarter section? (4) The permit or certification number for owners who have been issued an agency or delegated county feedlot permit or certificate of compliance? (5) The types of animal holding areas including pastures, confinement barns, and open lots? (6) The number and types of animals in the areas listed in item (5)? (7) The identity of surface water within 1000 feet of the facility? (8) The presence and type of manure storage areas? (9) The shortest distance from an animal holding area or manure storage area to a well? (10) The name of the person that completed the registration form?
1-4			7020.0350	Does the registration information match the actual conditions at the site?
1-5			7020.0350 Subp.4. B. (1) & (2)	Has the owner updated their registration at least once in the last four years? (1) The must comply with 7020.0350 Subp. 4. A. (a) Using a form provided by the MPCA. OR (b) Submission of a permit application to the MPCA or delegated county. OR (2) Be listed on a feedlot inventory that: (a) Is a Level II or Level III inventory as described in the Feedlot Inventory guidebook that contains the information listed in 1-3(1)-(5) & (10) above? (b) Has been updated within the applicable four-year registration interval? (c) Has been submitted to the MPCA in its updated form?
Comments/Corrective Actions:				

APPENDIX 2

Permit Requirements

Minnesota Rule 7020.0405 - 7020.0535. Permit Requirements				
	YES	NO	Rule Citation	Description
2-1			7020.0405 Subp.1. A-D	<p>Is the facility required to be permitted?</p> <p>(1) An NPDES permit for the construction and operation of an animal feedlot that meets the criteria for CAFO. (40 CFR, section 122.23)</p> <p>(2) An SDS permit under the following conditions:</p> <p style="margin-left: 20px;">(a) The construction of an animal feedlot or manure storage area that has been demonstrated not to meet the criteria for CAFO and is capable of holding 1000 or more animal units or the manure produced by 1000 or more animal units.</p> <p style="margin-left: 20px;">(b) The pollution hazards cannot be, or has not been, corrected under interim permit.</p> <p style="margin-left: 20px;">(c) The owner is proposing to construct or operate a new technology.</p> <p style="margin-left: 20px;">(d) Required as part of an EIS or EAW.</p> <p>(3) An interim permit for facilities not receiving a NPDES or SDS permit that:</p> <p style="margin-left: 20px;">(a) Are identified as a pollution hazard. OR</p> <p style="margin-left: 20px;">(b) Have a capacity of 300 animal units or more and will be land applying manure or process wastewater:</p> <p style="margin-left: 40px;">(i) on land where soil P exceeds levels in 7020.2225, subpart 3. (See Appendix 14)</p> <p style="margin-left: 40px;">(ii) on land in special protection areas with slopes exceeding 6%.</p> <p style="margin-left: 40px;">(iii) in a drinking water supply management area where aquifer is designated vulnerable under ch. 4720.</p> <p>(4) A Construction Short Form Permit if not required to obtain a NPDES, SDS or interim permit for construction/expansion to a capacity of 300 animal units or more, or manure produced by 300 AUs or more.</p>
2-2			7020.0405 Subp.1.	If the answer to question 2-1 is "Yes", is the facility permitted?
2-3			7020.0405 Subp.2.	If needed, were all permits issued before construction and/or expansion?
2-4			7020.0405 Subp.2.	If the owner has an interim permit authorizing construction for an expansion, were all pollution problems identified in the interim permit corrected before stocking the expansion?
<p>Comments/Corrective Actions:</p>				

APPENDIX 2

Permit Requirements

Minnesota Rule 7020.0405 - 7020.0535. Permit Requirements				
	YES	NO	Rule Citation	Description
PLEASE NOTE			7020.0405 Subp.3. A-D.	No permit is required for: <ul style="list-style-type: none"> (1) A feedlot or manure storage area that meets the requirements of 7020.2003, subparts 4 to 6. (OLAs) (See Appendix 4) (2) A short-term stockpile or compost site if the owner is not an owner of an animal feedlot or manure storage area, other than a short-term stockpile or composting site. (3) A livestock facility located on county fairgrounds. (4) A change in existing facility that consists solely of a change in ownership of the buildings, grounds, or feedlot.
2-5			7020.0405 Subp.4.	If a change of ownership of the feedlot or manure storage area has occurred, did the new owner submit to the commissioner or county feedlot officer, one of the following: <ul style="list-style-type: none"> A. A request for a permit modification according to part 7001.0190 for facilities covered under a SDS or NPDES permit? B. A change of ownership form provided by the commissioner?
2-6			7020.0505 Subp.4.A. 1-9, & 11.	Does the permit information match the actual conditions at the site? <ul style="list-style-type: none"> (1) The names and addresses of the owners and the signature of at least one of the owners. (2) The legal name and business address of the facility, if different than the owner. (3) The location of the facility by county, township, section, and quarter section. (4) A list of all animal types, and the maximum number of animals of each type that can be confined within each lot, building, or area at the animal feedlot. (5) A list of all existing and proposed manure storage areas, including plans and specifications as required in part 7020.2100 (see Appendix 9) for proposed liquid manure storage areas and part 7020.2125 (see Appendix 12) for permanent stockpile sites. (6) The total number of animal units the facilities listed in (4)-(5) will be capable of holding after completing construction or expansion. (7) The soil type or texture and depth to saturated soils at the facility as identified in the USDA Soil Survey Manual or a site-specific soils investigation. If applicable, submittal of soils investigation information required in parts 7020.2100 to 7020.2225 meets this requirement. (8) An aerial photograph showing the location of all wells, buildings, surface tile intakes, lakes, rivers, and watercourses within 1000 feet of the proposed facility. (9) The number of acres of land available for land application of manure. (10) If applicable, a description of all conditions that make the facility a pollution hazard and a description of the corrective and protective measures proposed to correct the pollution hazard.
Comments/Corrective Actions:				

APPENDIX 2

Permit Requirements

Minnesota Rule 7020.0405 - 7020.0535. Permit Requirements				
	YES	NO	Rule Citation	Description
2-7			7020.0505 Subp.4.B. (1) & (2)	If the facility is capable of holding 1000 animal units or more, or the manure produced by 1000 animal units or more, has an air emission plan and an emergency response plan been submitted?
2-8			7020.0505 Subp.4.C.	Did the owner of the feedlot or manure storage area notify the local zoning authority of the proposed new or expanded animal feedlot or manure storage structure prior to construction or expansion?
2-9			7020.0505 Subp.4.D.	If the owner expanded or constructed a feedlot with a capacity of 500 or more animal units or a manure storage area capable of holding the manure produced by 500 or more animal units did the owner notify each resident or owner of real property within 5000 feet of the facility?
2-10			7020.0535 Subp.5.	Has the work for which a construction short-form permit was issued been completed prior to expiration of the permit? <ul style="list-style-type: none"> • 24 months, with a 24-month extension allowed
2-11			7020.0535 Subp.5.	Has the pollution hazard for which an interim permit was issued been corrected prior to the expiration of the permit? <ul style="list-style-type: none"> • 2 years, with a 90-day extension allowed
2-12			EQB Rules	Was construction and/or expansion conducted that required a mandatory EAW? (See attached fact sheet)
2-13			EQB Rules	If the answer to question 2-12 was "Yes", was an EAW prepared? Date:
Comments/Corrective Actions:				

APPENDIX 3
Ambient Air Quality Standard Applicability

Minnesota Rule 7020.2002. Ambient Air Quality Standard Applicability				
	YES	NO	Rule Citation	Description
3-1			7020.2002	Has the producer claimed an exemption from the state ambient air quality standards, during the removal of manure from barns or manure storage areas? If no, lines 3-2 & 3-3 do not apply.
3-2			7020.2002, A-D	If the answer to question 3-1 is "Yes", did the notification include the following information: (1) Name of owners or the legal name of the facility? (2) Facility location (county, township, section and quarter section)? (3) Facility's permit number? (4) Anticipated removal start date and the anticipated number of days needed?
3-3			7020.2002	If the answer to question 3-1 is "Yes", did the producer comply with the time limits for the air quality exemption? (1) While removing manure and for 7 days after manure is removed from barns or manure storage facilities. (2) For a livestock facility having more than 300 AU, the maximum cumulative exemption in a calendar year is 21 days for the removal process.
Comments/Corrective Actions:				

APPENDIX 4

Water Quality Discharge Standards

Minnesota Rule 7020.2003. Water Quality Discharge Standards				
	YES	NO	Rule Subpart	Description
4-1			7020.2003, Subp.1.	Is animal manure, manure-contaminated runoff, or process wastewater flowing into a sinkhole, fractured bedrock, well, surface tile intake, quarry or mine?
4-2			7020.2003, Subp.2.	If a designated CAFO, or capable of holding 1000 AUs or more, or capable of storing the manure from the same, do effluent limitations comply with CFR, Title 40, part 412? (see attached)
4-3			7020.2003, Subp.3.	If not a CAFO and not capable of holding 1000 AUs or storing the manure from the same, is the feedlot in compliance with Minn. R. 7050.0215? <ul style="list-style-type: none"> < 25 mg/l BOD if discharging to surface waters < 1 mg/L phosphorus if discharging directly to or affecting a lake or reservoir
4-4			7020.2003, Subp.4.	Has the owner submitted an Open Lot Agreement (OLA) Certification form?
4-5			7020.2003, Subp.4.	Is the facility eligible for the OLA ? (answer “yes” or “no” to each of the following. If all “yes”, enter YES in the box to the left. If just one “no”, enter NO in the box to the left. This disqualifies the facility from entering OLA): <ol style="list-style-type: none"> (1) Is it capable of holding <300 AUs? (2) Is it an open feedlot (i.e. are animals not totally confined)? (3) Did it exist on 10/23/2000)? (4) Is no manure-contaminated runoff discharging to waters of the state? (5) Is there no immediate threat to human health or the environment? (6) Has it not been designated a CAFO? (7) Was the facility registered prior to 1/16/2002? (8) Has the owner submitted a signed OLA Certification form?
Comments/Corrective Actions:				

APPENDIX 4

Water Quality Discharge Standards

Minnesota Rule 7020.2003. Water Quality Discharge Standards				
	YES	NO	Rule Subpart	Description
4-6			7020.2003, Subp.5.	<p>Have the following Interim Corrective Measures required by the OLA been completed by 10/01/2005? (if inspected prior to 10/01/05, write N/A in the boxes to the left):</p> <p>(1) Has the facility been operated and managed to minimize discharges from the OLA eligible open lots? AND</p> <p>(2) (a) Are the following installed and operational:</p> <p style="margin-left: 20px;">(i) Clean-water diversions? AND</p> <p style="margin-left: 20px;">(ii) Vegetated (perennial grasses or forages) buffer areas or filter strips that have 100' or more of nonchannelized flow for all runoff from the open lots? OR</p> <p style="margin-left: 20px;">(b) Are other interim corrective and protective measures installed and operational to achieve a 50% or greater reduction in discharges of phosphorus and BOD loading over loads being discharged on 10/23/2000, according to a FLEVAL model run? AND</p> <p>(3) Has owner maintained records of FLEVAL model results and made them available to inspector(s) when requested?</p> <p>NOTE: If both lines 4-4 and 4-5 are answered NO, write N/A for this line.</p>
4-7			7020.2003, Subp.6.	<p>Have the following Final Corrective Measures required by the OLA been completed by 10/01/2010?</p> <p>(1) Is the facility in compliance with part 7050.0215 (see line 4-3 above)? OR</p> <p>(2) If proposing an expansion, has the owner complied with 4-2 or 4-3 above, as applicable, prior to increasing the number of animal units at the feedlot.</p> <p>NOTE: If both lines 4-4 and 4-5 are answered NO, write N/A for this line.</p>
<p>Comments/Corrective Actions:</p>				

APPENDIX 5

Location Restrictions And Expansion Limitations

Minnesota Rule 7020.2005. Location Restrictions And Expansion Limitations				
	YES	NO	Rule Subpart	Description
5-1			7020.2005, Subp.1.	<p>If a new (i.e. it did not exist on 10/23/2000) feedlot or manure storage area (msa), does it meet the following location restrictions? (If all “yes”, check YES in the box to the left. If just one or more “no”, check NO in the box to the left.):</p> <ul style="list-style-type: none"> Located outside of shoreland Located outside of a floodplain >300 feet from a sinkhole >100 feet from a private well >1000 feet from a community or public well
5-2			7020.2005, Subp.1.A.	<p>If within shoreland, has the feedlot or msa been unused for more than 10 years?</p> <p>NOTE: If YES, this feedlot must not resume operation. If NO, an Interim Permit is required to resume operation.</p>
5-3			7020.2005, Subp.1.B.	<p>If a new (i.e. it did not exist on 10/23/2000) feedlot or msa and it was constructed within 1000' of a community or public well, have the following 3 conditions been met? (If all “yes”, check YES in the box to the left. If just one or more “no”, check NO in the box to the left):</p> <p>(1) Has the MDH approved a drinking water supply management area (dwsma) for it?</p> <p>(2) Is the feedlot or manure storage area outside the dwsma?</p> <p>(3) Is the feedlot or manure storage area greater than 200' feet from the well?</p>
5-4			7020.2005, Subp.2.	<p>If the feedlot or manure storage area existed on 10/23/2000 and it is located within shoreland:</p> <p>Has it expanded to a capacity of 1000 AUs or more or any closer to the ordinary high water mark?</p>
5-5			7020.2005, Subp.3.	<p>If existing on 10/23/2000 and located in a floodplain, has the feedlot or msa expanded beyond its registered capacity?</p>
<p>Comments/Corrective Actions:</p>				

APPENDIX 6

Transportation of Manure

Minnesota Rule 7020.2010. Transportation of Manure				
	YES	NO	Rule Citation	Description
6-1			7020.2010	If the producer has had any manure leak, spill, or otherwise be deposited on or in the road right-of-way of a federal, state, or local highway, road, or street, was it removed and properly disposed of?
Comments/Corrective Actions:				

APPENDIX 7

Livestock Access to Waters Restriction

Minnesota Rule 7020.2015. Livestock Access to Waters Restriction				
	YES	NO	Rule Citation	Description
7-1			7020.2015 Subp. 1	If the facility is a CAFO, and/or is capable of holding 1000 or more AU, are animals prevented from entering waters of the state?
7-2			7020.2002 Subp. 2	If the facility is a non-CAFO, have fences been constructed to prevent entry to the following types of lakes, as classified by the MN Department of Natural Resources (part 6120.3000): (1) Natural environment lake? (2) Recreational development lake? (3) General development lake?
Comments/Corrective Actions:				

APPENDIX 8
Animal Feedlot or Manure Storage Area Closure

Minnesota Rule 7020.2025. Animal Feedlot or Manure Storage Area Closure				
	YES	NO	Rule Citation	Description
8-1			7020.2025	Does the producer have a closed animal feedlot or a manure storage area? (If no, skip lines 8-2 – 8-4)
8-2			7020.2025 A.	Did the producer, within one year of ceasing operation, remove and land apply manure and manure-contaminated soils from manure storage areas and animal holding areas? <ul style="list-style-type: none"> Must meet the requirements of 7020.2225 (See Appendix 14)
8-3			7020.2025 B.	Did the producer, as soon as practicable after completing the requirements in item 8-2, reduce soil nitrogen by growing alfalfa, grasses, or other perennial forage for a least five years?
8-4			7020.2025 C.	Did the producer send a certified letter within 60 days of final closure to the commissioner or county feedlot officer, stating that the animal feedlot or the manure storage area had been properly closed? <ul style="list-style-type: none"> The letter must identify the location of the animal feedlot or manure storage area by county, township, section and quarter section.
Comments/Corrective Actions:				

APPENDIX 9

Liquid Manure Storage Areas

Minnesota Rule 7020.2100. Liquid Manure Storage Areas				
	YES	NO	Rule Citation	Description
Subpart 1. General requirements				
9-1			7020.2100 Subp.1.	Has the owner submitted a permit application, as applicable, under part 7020.0405 , subp. 1 & 2? (See Appendix 2)
9-2			7020.2100 Subp.1.	Were all liquid manure storage areas designed, constructed, and operated in accordance with subparts 3-7? (See lines 9-13 to 9-33)
9-3			7020.2100 Subp.1.	If a liquid manure storage area has been unused for a period of three years or more, did the owner, prior to using the structure for storing manure process wastewaters, have a design engineer evaluate and prepare a report on the condition of the liner and include this report with a permit application submitted according to part 7020.0405 ? (See Appendix 2)
Subpart 2. Site restrictions				
9-4			7020.2100 Subp.2.A.	Has the owner constructed or expanded a liquid manure storage area with a capacity of more than 250,000 gallons in an area where geologic conditions are suitable for sinkhole development and where four or more sinkholes exist within 1000' of the proposed site?
9-5			7020.2100 Subp.2.B.	Has the owner expanded or constructed in an area(s) susceptible to soil collapse or sinkhole development? If “No”, skip lines 9-6 to 9-12.
9-6			7020.2100 Subp.2.B. (1)	Was the separation distance to bedrock less than 5 feet? <ul style="list-style-type: none"> Construction of a liquid manure storage area is prohibited if the separation distance to bedrock is < 5 feet.
Requirements for feedlots capable of holding fewer than 300 animal units or manure storage areas capable of holding manure produced by fewer than 300 animal units				
9-7			7020.2100 Subp.2.B. (1)(b)	If the separation distance to bedrock is 5 feet or more and less than 20 feet, was the manure storage area concrete-lined, aboveground, or composite-lined?
			7020.2100 Subp.2.B. (2)	Requirements for feedlots capable of holding 300 or more and fewer than 1000 animal units, or manure storage areas capable of holding the manure produced by 300 or more and fewer than 1000 animal units
Comments/Corrective Actions:				

APPENDIX 9

Liquid Manure Storage Areas

Minnesota Rule 7020.2100. Liquid Manure Storage Areas				
	YES	NO	Rule Citation	Description
9-8			7020.2100 Subp.2.B. (2)(a) & (2)(c)	If the separation distance to bedrock is 5 feet or more and less than 10 feet, does the manure storage area meet one of the following criteria: <ul style="list-style-type: none"> • Above ground? • Concrete-lined with a secondary liner consisting of a synthetic liner, HDPE liner, or 1 foot or greater cohesive soil liner? • Composite-lined with at least a 3 foot compacted cohesive soil liner under the synthetic liner?
9-9			7020.2100 Subp.2.B. (2)(b)	If the separation distance to bedrock is 10 feet or more and less than 30 feet, was the manure storage area liner concrete-lined, aboveground, or composite-lined?
			7020.2100 Subp.2.B. (3)	Requirements for feedlots capable of holding 1000 or more animal units, or manure storage areas capable of holding the manure produced by 1000 or more animal units
9-10			7020.2100 Subp.2.B. (3)(a) & (3)(c)	If the separation distance to bedrock is less than 15', does the construction manure storage area meet one of the following criteria: <ul style="list-style-type: none"> • Above ground? • Concrete-lined with a secondary liner consisting of a synthetic liner, HDPE liner, or 1 foot or greater cohesive soil liner? • Composite-lined with at least a 3 foot compacted cohesive soil liner under the synthetic liner?
9-11			7020.2100 Subp.2.B. (3)(b)	If the separation distance to bedrock is 15' or more and less than 40', was the manure storage area liner concrete-lined, above ground, or composite-lined?
				Requirements for feedlots where construction or modification is required to correct a pollution hazard
9-12			7020.2100 Subp.2.C.	Did the construction or modification result in an expansion of the animal feedlot capacity to hold more than 300 animal units or the manure storage area capacity to hold the manure produced by 300 animal units or greater?
				Subpart 3. Design standards for feedlots capable of holding 1000 or more animal units, or manure storage areas capable of holding the manure produced by 1000 or more animal units
9-13			7020.2100 Subp.3. A	Is the facility designed to provide a minimum of nine months of storage capacity?
Comments/ Corrective Actions:				

APPENDIX 9

Liquid Manure Storage Areas

Minnesota Rule 7020.2100. Liquid Manure Storage Areas				
	YES	NO	Rule Citation	Description
9-14			7020.2100 Subp.3. B	Do liquid manure storage areas comply with the following design standards (Lines 9-17 – 9-21):
9-15			Subp.3. B. (1)	If not concrete-lined , is the manure storage area designed and constructed to achieve a maximum theoretical seepage rate of not more than 1/56 inch per day throughout the design life of the manure storage area.
9-16			7020.2100 Subp.3. B. (2)	If concrete-lined , is the manure storage area designed and constructed with <ul style="list-style-type: none"> • water stops or joint sealant materials at all construction joints? and • sealing of all cracks which may extend through the concrete liner with appropriate sealing materials? and • a floor having a concrete thickness of not less than five inches? The floors must have: <ol style="list-style-type: none"> (a) steel reinforcing based on subgrade drag theory in American Concrete Institute, Slabs on Grade, ACI-360; or (b) fiber reinforcing, for which the design engineer must specify the type of fibers and the dosage rate in subpart 4, item F.
9-17			7020.2100 Subp.3. B. (3)	If composite-lined or aboveground , are the manure storage areas designed and constructed to achieve a maximum theoretical seepage rate of not more than 1/560 inch per day throughout the design life of the manure storage area? AND
9-18			7020.2100 Subp.3. B. (4)	Aboveground manure storage areas located in areas not subject to the site restrictions under lines 9-10 or 9-11, may be designed and constructed according to seepage standards under subitem (1) or (2), as applicable (see line 9-16)
9-19			7020.2100 Subp.3. C	Are all water supply systems, fuel lines, electrical conduit, and other equipment not solely functioning as part of the manure handling or transfer system designed or constructed to not penetrate the liner of a liquid manure storage area?
9-20			7020.2100 Subp.3. C	Is all piping and equipment functioning as part of the manure handling or transfer system which penetrates the liner of a liquid manure storage area identified in the design plans and specifications, and is the following information included: <ul style="list-style-type: none"> • the location and purpose of the penetrations? • dimensions of the penetrations? • the methods and materials used to provide a seal between each penetration and the liner?
Comments/Corrective Actions:				

APPENDIX 9

Liquid Manure Storage Areas

Minnesota Rule 7020.2100. Liquid Manure Storage Areas				
	YES	NO	Rule Citation	Description
Subpart 4. Design plans and specifications				
9-21			7020.2100 Subp.4.	Were design plans and specifications submitted to the commissioner or county feedlot officer with a permit application at least 90 days prior to the commencement of construction activities?
9-22			7020.2100 Subp.4.	Were the design plans and specifications prepared and signed by a design engineer, and do they meet the requirements in 7020.2100, subp. 4, A-N? <ul style="list-style-type: none"> These requirements do not apply to concrete-lined manure storage areas having a capacity of 20,000 gallons or less.
Subpart 5. Construction and notification requirements				
9-23			7020.2100 Subp.5. A	Did the owner construct the manure storage area according to the design plans and specifications submitted to the commissioner or the county feedlot pollution control officer? If “Yes”, skip question 9-24.
9-24			7020.2100 Subp.5. A	Were proposed engineering changes or modifications to the design plans and specifications, related to the liner specifications, location, depth, or separation distance to bedrock, submitted to the commissioner or county feedlot pollution control officer prior to commencement of construction related to the proposed change?
9-25			7020.2100 Subp.5. B	Did the owner notify the commissioner or county feedlot pollution control officer and the design engineer of intent to construct a minimum of three business days prior to commencement of construction? (If “No”, skip question 9-26) <ul style="list-style-type: none"> Notification must be completed by letter, telephone, or facsimile.
9-26			7020.2100 Subp.5. B (1)-(5)	Did the notification contain the following information: (1) the permit number, if applicable? (2) the owner's name, and the name of the facility if different than the owners? (3) the site location by county, township, section, and quarter section? (4) the design engineer's name? (5) the name of the contractor responsible for installing the liner?
9-27			7020.2100 Subp.5. C	Did the owner notify the commissioner or county feedlot pollution control officer within three business days following completion of construction of the manure storage area liner? (If “No”, skip question 9-28) <ul style="list-style-type: none"> Notification for vertical concrete-lined walls under this item must be completed before backfilling the walls.
Comments/Corrective Actions:				

APPENDIX 9

Liquid Manure Storage Areas

Minnesota Rule 7020.2100. Liquid Manure Storage Areas				
	YES	NO	Rule Citation	Description
9-28			7020.2100 Subp.5. C	Did the notification contain the following information: (1) the permit number, if applicable? (2) the owner's name, and the name of the facility if different than the owners? (3) the site location by county, township, section, and quarter section? (4) the design engineer's name? (5) the name of the contractor responsible for installing the liner?
9-29			7020.2100 Subp.5. D	Did the owner submit a construction report to the commissioner or county feedlot pollution control officer within 60 days of the completion of any new or modified manure storage area? <ul style="list-style-type: none"> The report must be prepared and signed by the design engineer and must contain an assessment of whether the completed manure storage area conforms to the design plans and specifications submitted to the commissioner or county feedlot pollution control officer. The commissioner may require manure removal from the manure storage area and corrective actions if the construction report indicates that the completed manure storage area does not conform to the design plans and specifications.
Subpart 6. Inspections of liquid manure storage areas.				
9-30			7020.2100 Subp. 6.	Did the owner comply with the requirements of 7020.2100 Subp.6.A-D for inspecting a liquid manure storage area (questions 9-31 to 9-33)? <ul style="list-style-type: none"> Does not apply to a concrete-lined manure storage area with a capacity of 20,000 gallons or less.
9-31			7020.2100 Subp. 6. A. (1) – (3)	Did the inspector meet one or more of the following qualifications: (1) a professional engineer licensed in the state of Minnesota or a person working under the professional engineer's direct supervision? (2) a qualified Natural Resources Conservation Services staff person? (3) if the manure storage area has a concrete liner, an American Concrete Institute or Minnesota Department of Transportation concrete field testing technician grade/Level I certified and concrete field inspector Level II certified?
Comments/Corrective Actions:				

APPENDIX 9

Liquid Manure Storage Areas

Minnesota Rule 7020.2100. Liquid Manure Storage Areas				
	YES	NO	Rule Citation	Description
9-32			7020.2100 Subp.6. B. (1) - (5)	<p>During construction of each manure storage area under this subpart, did the inspector record on a form provided by the commissioner, observations related to conformance to the design plans and specifications and construction standards of the following:</p> <p>(1) subgrade conditions prior to liner placement including soil texture, strength and moisture content, and presence of any frozen soils?</p> <p>(2) location and proper functioning of the perimeter drainage tile system, if required, and inspection/monitoring access?</p> <p>(3) for all concrete-lined manure storage areas:</p> <p>(a) reinforcing steel size, grade, spacing, cover, and that steel is free of loose rust, oil, or other debris;</p> <p>(b) concrete quality including air entrainment, temperature, and strength;</p> <p>(c) handling, placement, consolidation, and finishing of concrete;</p> <p>(d) curing and protection of concrete after placement, including hot and cold weather protective measures;</p> <p>(e) location, forming, and surface preparation of construction, contraction, and expansion joints;</p> <p>(f) placement of flexible waterstop materials in joints;</p> <p>(g) application of surface applied or injected crack and joint sealant materials?</p> <p>(4) repair of construction defects?</p> <p>(5) conformance to the liner penetration prohibitions under subpart 3, item C (lines 9-19 & 9-20)?</p>
9-33			7020.2100 Subp.6. C.	Did the contractor responsible for installation of the liner certify on a form provided by the commissioner that the manure storage area was constructed in conformance with the design plans and specifications and construction standards for all applicable stages of construction? (line 9-32)
9-34			7020.2100 Subp.6. D.	<p>Did the owner ensure that the following information is submitted to the design engineer for incorporation into the construction report required in subpart 5, item D? (line 9-30):</p> <p>(1) the name and qualifications of the inspector?</p> <p>(2) the inspection form in item B (line 9-32)? and</p> <p>(3) the liner contractor's certification form required in item C (line 9-33)?</p>
				Subpart 7. Operation and Maintenance.
9-33			7020.2100 Subp.7.	<p>Did the owner of the manure storage area operate and maintain the manure storage area according to the operation and maintenance plan submitted in accordance with subpart 4, item N?</p> <ul style="list-style-type: none"> See 7020.2100 Subp.4.
Comments/Corrective Actions:				

APPENDIX 10

Unpermitted or Noncertified Liquid Manure Storage Areas

Minnesota Rule 7020.2110. Unpermitted or Noncertified Liquid Manure Storage Areas				
	YES	NO	Rule Subpart	Description
				Subpart 1. Schedule for facilities capable of holding 1000 animal units or more
10-1			Subp.1.A	Has the manure storage area has been reconstructed according to part 7020.2100? (If yes, skip line 10-2) <ul style="list-style-type: none"> • See Appendix 9
10-2			Subp.1.B.	Was the manure storage area completely closed according to part 7020.2025 and notification given to the RGU at least three days prior to closure? <ul style="list-style-type: none"> • See Appendix 8
10-3			Subp.1.C.	Was a copy of the original manure storage design plans & specifications from the design engineer and a construction certification report submitted to the commissioner or the CFO?
10-4			Subp.1.D.	If the original plans and specs for a NRCS or SCS designed liquid manure storage area are no longer available, has the owner submitted a letter from the NRCS office manager who was responsible for the design and oversight of the project that states that the project was installed to NRCS or SCS design plans?
10-5			Subp.1.E	Has a water balance test has been conducted and submitted that demonstrates a seepage rate of 1/56 inch per day or less?
				Subpart 2. Schedule for facilities with a capacity to hold fewer than 1000 animal units
10-6			Subp.2.A	Has the owner completed one of the provisions under subpart 1, items A to C (10-1 – 10-3); or Has a soils investigation been performed by a design engineer or soil scientist licensed in the state of Minnesota and a report submitted to the commissioner or the CFO? (If “No” skip lines 10-7 to 10-11.)
10-7			Subp.2.B.(1)	Did the soils report demonstrate that NRCS practice standard Code 425 (1991) or Code 313 (January 1998) have been met for: (1) sealing and lining waste storage ponds; (2) vertical separation to groundwater; and (3) vertical separation to bedrock?
10-8			Subp.2.B.(2)	Was the soil profile information obtained and recorded for at least two equally spaced locations around the perimeter of the liquid manure storage area for each ¼ acre of manure storage area and within 50’ horizontal distance of the top of the manure storage area sidewall?
10-9			Subp.2B.(3)	Did the soil boring extend 5 feet below the bottom of the basin?
Comments/Corrective Actions:				

APPENDIX 10

Unpermitted or Noncertified Liquid Manure Storage Areas

Minnesota Rule 7020.2110. Unpermitted or Noncertified Liquid Manure Storage Areas				
	YES	NO	Rule Subpart	Description
10-10			Subp.2B.(4)	Did the boring extend 10 feet below the bottom of the basin in soils susceptible to soil collapse or sinkhole formation or until bedrock is reached?
10-11			Subp.2B.(5)	Did the soils record identify soil texture, depth to regional water table, and depth to seasonal water table?
10-12			Subp.2.B.(6)	Was the investigation done using equipment that can identify abrupt changes in soil texture and sand lenses ½ inch or greater in the soil profile?
				Subpart 3. Schedule for open lot feedlots with fewer than 300 animal units
10-13			Subp.3.(A)	Has the owner of the basin notified the commissioner or CFO by October 1, 2005 that the manure area will be reconstructed or closed by October 1, 2010? Notification must be done by letter, telephone or facsimile. (If “No”, skip line 10-14)
10-14			Subp.3.(A)	Did the notification include the owner’s name, facility name, location by county, township, section and ¼ section?
10-15			Subp.3.(B)	Has the owner closed the basin or had it reconstructed by October 1, 2010 ?

Six key questions to answer

- | | |
|---|---|
| (1) Was the storage facility inspected prior to closure?
(2) What measures are being used to prevent discharge during reconstruction or abandonment?
(3) Has the manure manure/effluent in the basin been tested?
(4) Have lateral trenches been dug to determine extent of contamination? | (5) Is the basin in coarse textured soils?
(6) Were soil samples collected from the floor of basin before final closure? |
|---|---|

Comments/Corrective Actions:

APPENDIX 11

Poultry Barn Floors

Minnesota Rule 7020.2120. Poultry Barn Floors				
	YES	NO	Rule Subpart	Description
				Subpart 1. General requirements
11-1			7020.2120, Subp.1.	If abandoned, has all manure & manure-contaminated soil been land applied according to 7020.2225? <ul style="list-style-type: none"> See Appendix 14
			7020.2120, Subp.2.	Subpart 2. Construction requirements for new concrete-lined or asphalt-lined poultry barn floors
11-2			7020.2120, Subp.2.A.	Is the floor thickness a minimum of 3.5" of concrete or 2" of asphalt?
11-3			7020.2120, Subp.2.B.	Has owner or operator inspected floors after each cleaning?
11-4			7020.2120, Subp.2.C.	Are cracks and joints sealed?
			7020.2120, Subp.3.	Subpart 3. Construction requirements for soil-lined poultry barn floors
11-5			7020.2120, Subp.3.A.	Is the soil liner constructed to the specification listed below in (1) or (2)? (1) >12" of compacted soil; or (2) >8" of compacted soil over (a) an underlayment of 3" of sand (80% particles passing through a number 200 sieve, and none >1", according to ASTM D-422); or (b) a geo-textile fabric that weighs at least 12 oz/sq. yd. And has a minimum hydraulic conductivity of 0.30 cm/sec?
Comments/Corrective Actions:				

APPENDIX 11

Poultry Barn Floors

Minnesota Rule 7020.2120. Poultry Barn Floors				
	YES	NO	Rule Subpart	Description
11-6			7020.2120, Subp.3.B.	Do all soils used for construction of the floor meet the following requirements: (1) Have at least 30% particles passing a #200 sieve, less than 20% retained on a #4 sieve, and no rocks >3" in diameter (ASTM D-422)? (2) Have a plasticity index greater than 7% (ASTM D-4318)? (3) Are placed in a minimum of 2 lifts, each lift being a minimum of 4" in-place thickness? (4) Were maintained at a moisture content of 0% to 5% above optimum (ASTM D-698 or ASTM D-1557 during construction? (5) Were compacted: (a) With at least 3 passes of sheepsfoot or padfoot-type compaction equipment with feet that extend through the loose lift soil into the previous lift? (b) Until achievement of 90% of standard proctor density verified according to ASTM-2922 at a frequency of one sample per 3,000 square feet?
11-7			7020.2120, Subp.3.C.	Has the poultry barn floor been placed at least 3 feet above bedrock or the water table?
11-8			7020.2120, Subp.3.D.	Has the soil liner been refurbished with at least a 2" lift of soils meeting the requirements of item B, prior to floor thickness being diminished by 2" from the thickness required in item A?
11-9			7020.2120, Subp.3.E.	Have cracks that extend through the floor been repaired?
11-10			7020.2120, Subp.3.F.	Has the floor been prevented from becoming saturated at any time during its service life?
			7020.2120, Subp.4.	Subpart 4. Construction requirements for PVC-lined poultry barn floors
11-11			7020.2120, Subp.4.A.	Has a seamless or factory seamed PVC liner at least 30 mils thick been placed at least 6" below the final elevation of the poultry barn floor?
11-12			7020.2120, Subp.4.B.	Has the upper 6" of the floor been constructed of protective material that meets manufacturer recommendations, provides adequate protection of PVC liner, and does not consist of particles that will inflict damage to the liner?
Comments/Corrective Actions:				

APPENDIX 11
Poultry Barn Floors

Minnesota Rule 7020.2120. Poultry Barn Floors				
	YES	NO	Rule Subpart	Description
			7020.2120, Subp.5. & 6.	Subparts 5. Recordkeeping (Applies to all poultry barns)
11-13			7020.2120, Subp.5.	Has the owner recorded and retained on file the results of all required testing in subp.3. and made these records available to the commissioner or CFO upon request? <ul style="list-style-type: none"> • See lines 11-5 to 11-10
				Subpart 6. Notification of construction (Applies to all poultry barns)
11-14			7020.2120, Subp.6.	Has the owner notified the commissioner or CFO by letter, telephone or facsimile of intent to construct a minimum of 3 business days prior to commencement of construction and within 3 business days following completion of construction? (If “No”, skip line 11-15)
11-15			7020.2120, Subp.6.	Did the notification include all of the following information: (1) The permit number, if applicable? (2) The owner’s name, and the name of the facility if different? (3) The site location by county, township, section, and quarter section? (4) The name of the contractor responsible for installing the floor?
Comments/Corrective Actions:				

APPENDIX 12

Manure Stockpiling Sites

Minnesota Rule 7020.2125. Manure Stockpiling Sites				
	YES	NO	Rule Citation	Description
Subp. 1. General Requirements (For both short-term and permanent manure stockpiles)				
12-1			7020.2125 Subp. 1.	Do all stockpiles comply with location restrictions and expansion limitations found in 7020.2005? • See Appendix 5
12-2			7020.2125 Subp.1. A	Is the stockpile located and constructed such that manure-contaminated runoff from the site does not discharge to waters of the state?
12-3			7020.2125 Subp.1. B	Is a three-to-one horizontal-to-vertical ratio maintained, or does the manure have at least a 15% solids content?
12-4			7020.2125 Subp.1. C	Has the owner avoided using rock quarries, gravel or sand pits, bedrock and any mining excavation sites for stockpiling manure?
12-5			7020.2125 Subp.1. D	Is the size of the short-term stockpile less than the volume needed to meet the agronomic needs of the crops on 320 acres of fields and less than the agronomic needs of the crops on the tract of land which the stockpiled manure is to be applied? • The agronomic needs of the crops must comply with application rates in part 7020.2225 (See Appendix 14).
Subp. 2. Additional requirements for short-term stockpiling:				
12-6			7020.2125 Subp.2. A	Has the manure been removed from the site and land applied within one year of the date when the stockpile was initially established? • Must be land applied in accordance with 7020.2225 (See Appendix 14).
12-7			7020.2125 Subp.2. B	Did the owner have a vegetative cover on the site for at least one full growing season prior to re-use as a short-term stockpile site? The following exceptions apply: (1) Sites located in the confines of a hooped open lot having less than 100 AUs. (2) Sites where manure is stockpiled for less than 10 days and no more than 6 times per year.
12-8			7020.2125 Subp.2. C	Are all of the short-term stockpiles located outside of the following areas: (1) Within 300' of flow distance and at least 50' horizontal distance to waters of the state, sinkholes, rock outcrop, open tile intakes, and any uncultivated wetlands which are not seeded to annual farm crops or crop rotations involving perennial grasses, forages? (2) Within 300' of flow distance to any road ditch that flows to the features identified in subitem (1) or within 50' from any road ditch where subitem (1) apply? (3) Within 100' of any private water supply or unused and unsealed well and 200' from any private well with less than 50' of watertight casing and that is not cased through a confining layer at least 10' thick? (4) Within 100' from a drain tile, that is 3' or less in depth below soil surface?
Comments/Corrective Actions:				

APPENDIX 12

Manure Stockpiling Sites

Minnesota Rule 7020.2125. Manure Stockpiling Sites				
	YES	NO	Rule Citation	Description
12-9			7020.2125 Subp.2. D	Has the owner maintained a minimum distance of 2' between the base of the stockpile and the seasonal high water table or saturated soil as identified in the most recent USDA/NRCS soil survey manual, or based on site-specific soils investigation?
12-10			7020.2125 Subp.2. E	Has the owner complied with the prohibition on locating stockpiles in the following areas? (1) On land with greater than 6% slope? (2) On land with slopes between 2-6% that does not have clean water diversions and erosion control practices installed? (3) On soils where the soil texture to a depth of 5' is coarser than a sandy loam, as identified in the most recent USDA/NRCS soil survey manual or based on a site-specific soils investigation?
Subp. 3. Recordkeeping for short-term stockpile sites				
12-11			7020.2125 Subp.3.	Does the owner have records for each short-term stockpile site on file for the last three years ?
12-12			7020.2125 Subp.3. A-E	Do the records contain the following information: (1) The location of the stockpile? (2) The date on which each stockpile was established? (3) The volume of manure stockpiled? (4) The nutrient analysis of the manure? (5) When the stockpile was land applied?
Subp. 4. Additional requirements for long-term stockpile sites				
12-13			7020.2125 Subp.4.	Has the owner installed, or have plans to install, a liquid manure storage area to collect manure-contaminated runoff if necessary to comply with water quality discharge standards in 7020.2003? • See Appendix 4.
12-14			7020.2125 Subp.4.	If the owner has installed a liquid manure storage area to collect manure-contaminated runoff, does it comply with the requirements of 7020.2100? • See Appendix 9.
12-15			7020.2125 Subp.4.	Has the owner complied with the permit requirements of 7020.0405, subpart 1? • See Appendix 2.
Comments/Corrective Actions:				

APPENDIX 12

Manure Stockpiling Sites

Minnesota Rule 7020.2125. Manure Stockpiling Sites				
	YES	NO	Rule Citation	Description
12-16			7020.2125 Subp.4. B. (1) & (2)	Does the stockpile site liner comply with one of the following requirements: (1) At least 2' thick and constructed of soils having a hydraulic conductivity of 1×10^{-7} cm/sec (one times ten to the minus seven centimeters per second) or less? (2) Have other liner materials which achieve a hydraulic conductivity $< 1 \times 10^{-7}$ cm/sec (one times ten to the minus seven centimeters per second)?
12-17			7020.2125 Subp.4. C.	Is the site constructed to prevent surface water from entering and passing through the stockpile? <ul style="list-style-type: none"> • Diversion structures, elevated platforms or other devices may be used.
12-18			7020.2125 Subp.4. C.	If the upgradient slopes are greater than 2%, have clean water diversions been constructed that surround at least the three upgradient sides of the stockpile site? <ul style="list-style-type: none"> • Diversions must be of sufficient height to prevent outside water from passing over them during snowmelt, or rainfall events less than the 25-year, 24-hour storm event.
12-19			7020.2125 Subp.4. D.	Is the permanent stockpile site operated and maintained in a manner so as to protect the integrity and structural reliability of the manure storage area?
12-20			7020.2125 Subp.4. E.	Did the owner notify the commissioner or CFO at least three days before construction and/or within three days after completion of construction? (If "No", skip line 12-21.) <ul style="list-style-type: none"> • Notification may be by letter, telephone, or facsimile.
12-21			7020.2125 Subp.4. E. (1) - (4)	Did the notification include the following information: (1) The permit number if applicable? (2) The owner's name, and the name of the facility if different than the owner? (3) The site location by county, township, section, and quarter section? (4) The name of contractor responsible for installing the stockpile liner?
12-22			7020.2125 Subp.4. F.	Has the owner maintained a minimum distance of 2 feet between the base of the stockpile and the seasonal high water table or saturated soil as identified in the most recent USDA/NRCS soil survey manual, or based on site-specific soils investigation? (7020.2125, subpart 2, item D)
Comments/Corrective Actions:				

APPENDIX 13

Manure Compost Sites

Minnesota Rule 7020.2150. Manure Compost Sites				
	YES	NO	Rule Citation	Description
Subpart 1. General Requirements				
13-1			7020.2150 Subp.1.	Is the owner composting only manure? <ul style="list-style-type: none"> If also composting solid waste see MN Rules 7035.2836. If composting dead animals see part 1719.4000.
Subpart 2. Operational Requirements				
13-2			7020.2150 Subp.2. A.	Is the owner meeting the requirements of 7020.2125? <ul style="list-style-type: none"> See Appendix 12, Manure Stockpiling
13-3			7020.2150 Subp.2. B.	If the owner is operating a compost site under 7020.2125 (Manure stockpiling), subparts 1 to 3, is the owner complying with 7020.2125, subpart 4, item C? <ul style="list-style-type: none"> See Appendix 12.
13-4			7020.2150 Subp.2. C.	Is the owner producing finished compost by a process to further reduce pathogens (PFRP) complying with one of the PFRP methods listed below (circle method number used)? <ol style="list-style-type: none"> (1) The windrow method for reducing pathogens consists of an unconfined compost process involving periodic aeration and mixing. Aerobic conditions must be maintained during the compost process. A temperature of 55 degrees Celsius must be maintained in the windrow for at least three weeks. The windrow must be turned at least once every three to five days. (2) The static aerated pile method for reducing pathogens consists of an unconfined composting process involving mechanical aeration of insulated compost piles. Aerobic conditions must be maintained during the compost process. The temperature of the compost pile must be maintained at 55 degrees Celsius for at least seven days. (3) The enclosed vessel method for reducing pathogens consists of a confined compost process involving mechanical mixing of compost under controlled environmental conditions. The retention time in the vessel must be at least 24 hours with the temperature maintained at 55 degrees Celsius. A stabilization period of at least seven days must follow the enclosed vessel retention period. Temperature in the compost pile must be maintained at least at 55 degrees Celsius for three days during the stabilization period.
Comments/Corrective Actions:				

APPENDIX 13

Manure Compost Sites

Minnesota Rule 7020.2150. Manure Compost Sites				
	YES	NO	Rule Citation	Description
Subp. 3. Recordkeeping and Reporting Requirements				
13-5			7020.2150 Subp.3.	<p>Is the owner of the manure compost site required to obtain a permit under part 7020.0405, subpart 1, item A or B?</p> <p>(If yes, proceed to line 13-6. If no, lines 13-6 & 13-7 do not apply.)</p> <ul style="list-style-type: none"> • Item A: NPDES permit for construction and operation of an animal feedlot that meets the criteria for a CAFO. • Item B: An SDS Permit. • See Appendix 2, line 1.
13-6			7020.2150 Subp.3. A. (1) - (5)	<p>Has the owner analyzed the mature manure compost and maintained a record of the following test results:</p> <p>(1) pH?</p> <p>(2) Moisture content?</p> <p>(3) Particle size?</p> <p>(4) NPK ratio?</p> <p>(5) Soluble salt content?</p>
13-7			7020.2150 Subp.3. B. (1) -(3)	<p>If the owner's NPDES or SDS permit requires submittal of an annual report, has an annual report been submitted that contains the following information:</p> <p>(1) The quantities and sources of manure and bulking agents delivered to the facility?</p> <p>(2) The temperature and retention time data for all compost produced?</p> <p>(3) The information recorded in item A (line 13-6)?</p>
Comments/Corrective Actions:				

APPENDIX 14

Land Application of Manure – Level I Inspection

Minnesota Rule 7020.2225, subps. 2 and 5. Land Application of Manure					
	YES	NO	Rule Subpart	Description	Comments/Corrective Actions
			Subp. 2.	Manure Nutrient Testing Requirements	See resource list for assistance
14-1			Subp.2.	Is manure from storage areas storing manure from more than 100 animal units being tested for nitrogen and phosphorus in accordance with items A-E (Lines 14-2 to 14-6)?	100+ AUs Testing is not required just because the facility has 100+ AUs on site. For Example: A feedlot with 150 AUs that stores manure in three separate areas (50 AUs worth of manure each) is not required to test manure.
14-2			Subp.2.A.	Is the owner initially sampling manure storage areas serving more than 300 animal units annually, for at least three consecutive years?	300+ AUs
14-3			Subp.2.B.	Is manure being re-tested when climatic conditions, feed, livestock type, or changes in storage and handling occur?	100+ AUs
14-4			Subp.2.C	Is ongoing testing of manure being conducted every four years unless otherwise required under item B or in a permit?	100+ AUs
14-5			Subp.2.D.	Is nutrient analysis being done at a lab certified by the MN Dept of Ag or as approved by the commissioner?	All feedlots
14-6			Subp.2.E.	Is a representative manure sample being collected based on U of M Extension Service recommendations?	All feedlots

Key Questions:

- How are samples taken, to ensure they are representative?
- Are all sources of manure tested (liquid, solid, slurry 1 and 2, etc.)?

Do they know how to get chart values for manure nutrient content when analysis is not required?

APPENDIX 14
Land Application of Manure – Level I Inspection

Minnesota Rule 7020.2225, subps. 2 and 5. Land Application of Manure					
	YES	NO	Rule Subpart	Description	Comments/Corrective Actions
			Subp.5.	Recordkeeping	See resource list for assistance
14-7			Subp.5(A)	Is the manure generated from a feedlot with 100 or more AUs? If “No”, stop here, no records required. If “Yes”, go to line 14-8.	
14-8			Subp.5.(A) 1&2	(1) Are records kept on file of manure applications in special protection areas for the most current 6 years? (2) Are records kept of manure applications outside of special protection areas for the most recent three years of land application?	No records expected prior to October 2001. 100 + AUs
14-9			Subp.5.(B)	Does the facility have 300 or more animal units or over 100 animal units in a vulnerable drinking water supply mgmt. area as defined by MN Dept. of Health? If “Yes” go to line 14-10, if no, go to 14-11.	300 + AUs or 100 + AUs in vulnerable drinking water areas

APPENDIX 14
Land Application of Manure – Level I Inspection

Minnesota Rule 7020.2225, subps. 2 and 5. Land Application of Manure					
	YES	NO	Rule Subpart	Description	Comments/Corrective Actions
14-10			Subp.5.(B) 1-8	<p>Do the records at the site feedlot or manure storage area contain:</p> <p>(1) Field location and cropland acreage where manure is applied?</p> <p>(2) Volume or tonnage of manure applied on each field?</p> <p>(3) Manure test N and P content according to subpart 2?</p> <p>(4) Dates of manure application?</p> <p>(5) Dates of manure incorporation when incorporated within 10 days?</p> <p>(6) Expected plant available amounts of N and P released from manure and commercial fertilizers on each field where manure is applied?</p> <p>(7) A description of changes to the manure mgmt plan, including documentation of a remedial nitrogen applications that exceed the nitrogen rate standard in subpart 3?</p> <p>(8) Soil nutrient test results?</p>	<p>100+ AUs in vulnerable drinking water areas.</p> <p>300+ AUs when manure is <u>not</u> transferred.</p> <p><i>Flags for Level II inspection:</i></p> <p>(1) Application rates seem excessive</p> <p>(2) Soil P levels are high on fields in special protection areas or on most fields</p> <p>Do they understand how to calculate nutrient availability and N carry-over?</p> <p>Discuss sensitive area management. Do they understand setback and P management requirements for these areas?</p> <p>Have soil samples been taken within last four years? Scan results to see if soil P levels are excessive. If yes, may need Level II review.</p>
14-11			Subp.5.(C) 1&2	<p>For manure land applied from feedlots or manure storage areas with capacities between 100 to 299 AUs, are the following records kept:</p> <p>(1) Information needed to credit the N available for crop growth that is supplied from manure or process wastewater applications?</p> <p>(2) Manure and process wastewater analysis for N and P if required in subp.2?</p>	<p>100-299 AUs.</p> <p>Type of information for producer to keep:</p> <ul style="list-style-type: none"> • field location; • total amount of manure applied on each field; • total acreage used; • N applied from all sources.

APPENDIX 14
Land Application of Manure – Level I Inspection

Minnesota Rule 7020.2225, subps. 2 and 5. Land Application of Manure					
	YES	NO	Rule Subpart	Description	Comments/Corrective Actions
14-12			Subp.5(D)	Does the feedlot or manure storage area have a capacity of 300 or more animal units, and is manure transferred for application to fields not owned or leased by the feedlot or manure storage area owner? If yes, go to 14-13. If “No”, skip to line 14-15.	300+ AUs: Manure transferred to land not owned or leased by feedlot owner.
14-13			Subp.5.(D)1 a-d	Are the most current three years of manure and process wastewater application records on file with the required information listed below: (1) The volume or tonnage of manure or process wastewater delivered? (2) The N and P content of the manure or process wastewater delivered? (3) The name and address of any commercial hauler or applicator who received manure process wastewater? (4) The location where the manure or process wastewater was applied and rate of application?	300+ AUs Feedlot owner <u>and</u> commercial applicator must keep these records.
14-14			Subp.5.(D)2	If the manure or process wastewater is applied by a commercial applicator on land not owned or leased by the animal feedlot owner, were records containing the information in subp.(D) 1a-d submitted to the owner of the feedlot or manure storage area within 60 days of land application?	Get name of commercial applicator for possible follow up and check their certification on MDA web site.
			Subp.4	Manure Management Plan Requirements	See resource list for assistance
14-15			Subp.4.(A)1	Has the owner submitted a NPDES, SDS, interim or CSF permit application for a facility with a capacity of more than 100 animal units? If yes, a MMP is required. Go to line 14-17.	Required to submit MMP for all but CSF permit. CSF submit only on request.

APPENDIX 14

Land Application of Manure – Level I Inspection

Minnesota Rule 7020.2225, subps. 2 and 5. Land Application of Manure					
	YES	NO	Rule Subpart	Description	Comments/Corrective Actions
14-16			Subp.4(A)2	Is the facility 300 or more AUs, not required to apply for a permit, and does a commercial animal waste technician or a certified private manure applicator applies the manure from the facility? If yes, a MMP is not required, stop here.	If no, MMP required by 2005, submit only on request.
14-17			Subp.4.(A)3	Is a copy of the MMP kept at the feedlot or manure storage area?	
14-18			Subp.4(B)	Has a MMP that complies with item 7020.2225, Subpart 1(D) been submitted?	
14-19			Subp.4.(B)1-2	Has a MMP been submitted if one of the following is true: (1) Application for a NPDES, SDS, or interim permit has been submitted? (2) MMP submittal has been requested by the CFO or agency?	

Flags for possible Level II land application inspection:

- Fits priorities for Level II land application inspections (priority watershed, complaints, sensitive area, 1000+ AUs, etc.).
- Quantity of manure recorded as applied is much less than expected quantities to be generated for the size of facility.
- Commercial applier is not providing information to feedlot owner – follow up with applier.

APPENDIX 15

Land Application of Manure (Level II inspection – select items to review as appropriate for inspection and priorities)

Minnesota Rule 7020.2225, subps. 1, 3, 4, 6, 7, and 8. Land Application of Manure					
	YES	NO	Rule Subpart	Description	Comments/Corrective Actions
			Subp. 1.	In General	See resource list for assistance.
15-1			Subp.1.A.(1)	Is manure being applied in a manner that will result in discharge to waters of the state during the application process or is application allowed on seasonally saturated soils that are planted to annual or perennial crops?	All feedlots This is direct runoff of manure during application.
15-2			Subp.1.A.(2)	Is manure being applied in a manner that will result in manure-contaminated runoff reaching waters of the state?	All feedlots This is manure-contaminated stormwater runoff.
15-3			Subp.1.B.	Is manure being applied in road ditches?	All feedlots
15-4			Subp.1.D	Is manure or process wastewater from a feedlot or manure storage area with 300+ AU being transferred for application on land not owned or leased by the owner? If “Yes” go to line 15-5, if “No”, go to 15-7.	300+ AUs: transferred manure
15-5			Subp.1.D. (1)	Is the recipient of the manure compliant with the MMP developed by the manure provider?	300+ AUs: receiver of transferred manure
15-6			Subp.2.D(2)	Did the recipient of the manure complete the requirements in Subp.4(D) except for those provisions completed by the manure provider. • See lines 15-18 to 15-30?	300+ AUs: receiver of transferred manure

APPENDIX 15

Land Application of Manure (Level II inspection – select items to review as appropriate for inspection and priorities)

Minnesota Rule 7020.2225, subps. 1, 3, 4, 6, 7, and 8. Land Application of Manure					
	YES	NO	Rule Subpart	Description	Comments/Corrective Actions
			Subp.3.	Nutrient Application Rate Standards	See resource list for assistance
15-7			Subp.3.(A)	<p>Were manure and process wastewater application rates limited so that the plant available N from all sources does not exceed crop N needs for non-legumes, and crop uptake for non-legumes and are limited as follows:</p> <p>(1) Expected crop N needs, crop N removal, and available N from manure and legumes are based on the most recent U of M Extension Service recommendations?</p> <p>(2) Nitrogen application rates are not exceeding recommendations unless conditions exist that warrant this (weather, N management history, etc.) and do not exceed 20%?</p> <p>(3) Credit is being taken for all sources of N (commercial fertilizer, soil organic matter, irrigation water, legumes, biosolids, process wastewater, manure applications past/present)?</p>	<p>All feedlots</p> <p>Can also use recommendations from another land grant university from a contiguous state.</p> <p>N application rates that exceed recommendations must be justified and documented in records. N application rates that exceed recommendations by more than 20%, are only allowed when crop N deficiencies are visible or measured.</p>
15-8			Subp.3.(C)	If the feedlot or manure storage area has a capacity of 300 or more AUs, are soil samples being taken every four years and analyzed for P?	<p>300+ AUs</p> <p>Discuss P management requirements</p>
15-9			Subp.3.C(1)	Are the soil phosphorous levels of 60 ppm Olsen or 75 ppm Bray P1 being exceeded in special protection areas or within 300 ft of a tile intake?	300+ AUs
15-10			Subp.3.C(2)	Are fields outside of special protection areas and more than 300' from a tile intake exceeding 120 ppm Olsen or 150 ppm Bray P1?	300+ AUs
15-11			Subp.3.C.	If questions 15-10 or 15-11 are yes, has a MMP and permit application been submitted to the MPCA or CFO?	<p>300+ AUs</p> <p>MMP must address preventing P transport to surface waters in accordance with subpart 4. D.</p>

APPENDIX 15

Land Application of Manure (Level II inspection – select items to review as appropriate for inspection and priorities)

Minnesota Rule 7020.2225, subps. 1, 3, 4, 6, 7, and 8. Land Application of Manure					
	YES	NO	Rule Subpart	Description	Comments/Corrective Actions
			Subp.4	Manure Management Plan Requirements	See resource list for assistance.
15-12			Subp.4.(A)1	Has the owner submitted a NPDES, SDS, interim or CSF permit application for a facility with a capacity of more than 100 animal units? If yes, a MMP is required, complete lines 15-14 to 15-30 re: MMP requirements.	Required to submit MMP for all but CSF permit. CSF submit only on request.
15-13			Subp.4(A)2	Is the facility 300 or more AUs, not required to apply for a permit, and a commercial animal waste technician or a certified private manure applicator applies the manure from the facility? If yes, MMP not required, stop here.	 If no, MMP required by 2005, submit only on request.
15-14			Subp.4.(A)3	Is a copy of the MMP kept at the feedlot or manure storage area?	Lines 15-14 to 15-30, 100 + AUs and required to have a NPDES, SDS, interim or CSF permit
15-15			Subp.4(B)	Has a MMP that complies with item D been submitted if required? • See line 15-30	
15-16			Subp.4.(B)1-2	Has a MMP been submitted if one of the following is true: (1) Application for a NPDES, SDS, or interim permit has been submitted. (2) MMP submittal has been requested by the CFO or agency.	
15-17			Subp.4.(C)	Is owner reviewing the MMP annually and making adjustments to the MMP for changes in crop rotation, amount of manure applied, manure analysis results, or other factors which affect manure application and distribution?	Check content of MMP
15-18			Subp.4.(D)1	Does the MMP contain descriptions of the manure storage and handling system(s) and the expected amount of nutrients and manure that will need to be land applied?	
15-19			Subp.4.(D)2	Does the plan include application methods, equipment and calibration procedures?	

APPENDIX 15

Land Application of Manure (Level II inspection – select items to review as appropriate for inspection and priorities)

Minnesota Rule 7020.2225, subps. 1, 3, 4, 6, 7, and 8. Land Application of Manure					
	YES	NO	Rule Subpart	Description	Comments/Corrective Actions
15-20			Subp.4.(D)3	Does the MMP include acreage available for manure or process wastewater application including maps or aerial photos showing field location and areas within fields suitable for land application?	Not required if ownership of manure transferred (must be in receiver's MMP).
15-21			Subp.4.(D)4	Does the MMP describe nutrient testing methods and frequency, and the expected nutrient content of the manure to be applied?	
15-22			Subp.4.(D)5	Are planned manure application rates and assumptions used to determine these rates including N and P calculations included in the MMP?	Not required if ownership of manure transferred (must be in receiver's MMP).
15-23			Subp.4.(D)6	Does the MMP include all N and P sources to be applied per acre by field and for each crop in the rotation?	Not required if ownership of manure transferred (must be in receiver's MMP).
15-24			Subp.4.(D)7	Are expected 1 st and 2 nd year plant available nutrients from manure and process wastewater included in the MMP?	Not required if ownership of manure transferred (must be in receiver's MMP).
15-25			Subp.4.(D)8	Are planned months of application included in the MMP?	
15-26			Subp.4.(D)9	Does the MMP include a description of protective measures to be used in floodplain, special protection areas, soils with less than 3' above limestone bedrock, DWSMAs with a vulnerable aquifer, land within 300' of tile intakes, sinkholes without constructed diversions, and uncultivated wetlands?	
15-27			Subp.4.(D)10	If manure is applied to frozen or snow covered soils does the MMP list field location, land slopes, proximity of application site to surface waters, expected months of application, and tillage or other conservation methods used to minimize manure contaminated runoff?	Not required if ownership of manure transferred (must be in receiver's plan).

APPENDIX 15

Land Application of Manure (Level II inspection – select items to review as appropriate for inspection and priorities)

Minnesota Rule 7020.2225, subps. 1, 3, 4, 6, 7, and 8. Land Application of Manure					
	YES	NO	Rule Subpart	Description	Comments/Corrective Actions
15-28			Subp.4.(D)11	Does the MMP describe how phosphorus transport to surface waters from fields with frozen or snow covered soils will be minimized?	
15-29			Subp.4.(D)12	Does the MMP include soil nitrate testing in accordance with University of MN Extension Service recommendations?	Soil nitrate testing is not always required.
15-30			Subp.4.(D)13	Does the MMP include the type of cover crop(s) that will be grown if manure is applied in June, July, or August to harvested fields that would not otherwise have an actively growing crop?	Example of this situation, is application after harvest of a crop that is typically harvested early in the summer such as oats.
			Subp.6	Manure and Process Wastewater Application Requirements in Special Protection Areas	See resource list for assistance All feedlots
				Is manure being applied within special protection areas. If “NO”, stop here. If “Yes”, complete lines 15-31 to 15-40, as applicable.	Special protection area means land within 300' of: (1) Protected waters and protected wetlands as identified on DNR protected waters and wetlands maps. (2) Intermittent streams and ditches identified on USGS quad. maps, excluding drainage ditches with berms and segments of intermittent streams which are grassed waterways.
15-31			Subp.6.(A)	Is manure or process wastewater applied to frozen or snow covered soils in special protection areas.	All feedlots
15-32			Subp.6.(B)	Is manure being applied on unfrozen soils in special protection areas? If yes, must comply with requirements in 15-33, 15-34 or 15-35.	All feedlots Discuss options for manure management in special protection areas.
15-33			Subp.6.(B)1	Is a vegetative buffer being maintained that: (1) Consists of perennial grasses or forages? (2) Is a minimum of 100' wide along lakes and perennial stream and at least 50' wide in other special protection areas? (3) Does not receive manure application from any feedlot or manure storage area?	Option 1 for meeting subp 6.B

APPENDIX 15

Land Application of Manure (Level II inspection – select items to review as appropriate for inspection and priorities)

Minnesota Rule 7020.2225, subps. 1, 3, 4, 6, 7, and 8. Land Application of Manure					
	YES	NO	Rule Subpart	Description	Comments/Corrective Actions
15-34			Subp.6.(B)2	Are the following practices complied with: (1) No application within 25' of the protected water, protected wetland, int. stream, or drainage ditch in the special protection area? (2) Inject or incorporate within 24 hours or prior to rainfall? (3) Apply manure at a rate/frequency that will keep soil P levels below 16 ppm Olsen or 21 ppm Bray P1.	Option 2 for meeting subp 6.B This option requires P management be followed If soil P is greater than 16 or 21 ppm, than application rates and frequency of application must be done to prevent increases in soil P over a 6 year time period.
15-35			Subp.6.(B)3	Are other agency-approved practices are being implemented that have been demonstrated through research at a land grant college to provide equal water quality protection as injection or incorporation within 24 hours.	Option 3 for meeting subp 6.B To date, no agency approvals have been granted
15-36			Subp.6(C)	Is manure being applied by traveling gun, center pivot, or irrigation equip. that allows manure to travel more than 50' through the air in special protection area.	All feedlots
			Subp.7.	Manure Application Within 300' of Open Tile Intakes	See publication " <i>Applying Manure in Sensitive Areas</i> " All feedlots
15-37				Is manure being applied within 300' of open tile intakes? If "No", stop here. If "Yes", complete lines 15-38 to 15-40.	

APPENDIX 15

Land Application of Manure (Level II inspection – select items to review as appropriate for inspection and priorities)

Minnesota Rule 7020.2225, subps. 1, 3, 4, 6, 7, and 8. Land Application of Manure					
	YES	NO	Rule Subpart	Description	Comments/Corrective Actions
15-38			Subp.7. (A&B)	<p>Does the application of manure within 300' of open tile intakes meet the following requirements:</p> <p>(1) All liquid manure and process wastewater is being incorporated within 300' of an open tile intake within 24 hrs?</p> <p>(2) All solid manure and process wastewater applied within 300' of an open tile intake will be incorporated within 24 hrs after 10/1/05?</p> <p>(3) Other agency-approved practices being implemented that have been demonstrated through research at land grant college to provide equal water quality protection as provided by incorp./injection within 24 hrs?</p>	<p>All feedlots</p> <p>Exception for solid manures until 2005.</p> <p>No other agency approved practices exist at this time.</p>
			Subp.8.	Manure and Process Wastewater Application Near Sinkholes, Mines, Quarries and Wells	All feedlots
15-39			Subp.8.(A)	Is manure being applied to land within 50' of an active or inactive water supply well, sinkhole, mine, or quarry? If “No”, stop here. If “Yes”, complete line 15-40.	All feedlots
15-40			Subp.8.(B)	Is manure being incorporated within 24 hours when the application is within 300' feet of a sinkhole and the land slopes towards the sinkhole and there are no diversions protecting the sinkhole in place?	All feedlots

