

PERMIT NO. MIG019000

**STATE OF MICHIGAN**
DEPARTMENT OF ENVIRONMENTAL QUALITY

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTEWATER DISCHARGE GENERAL PERMIT**

CONCENTRATED ANIMAL FEEDING OPERATIONS

In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 *et seq.*) (the "Federal Act"), Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"), Parts 31 and 41, and Michigan Executive Orders 1991-31, 1995-4, and 1995-18, concentrated animal feeding operations (CAFOs) are authorized to operate facilities specified in individual "certificates of coverage" in accordance with effluent limitations, monitoring requirements and other conditions set forth in this general National Pollutant Discharge Elimination System (NPDES) permit (the "permit").

The applicability of this permit shall be limited to CAFOs that have not been determined by the Michigan Department of Environmental Quality (the "Department") to need an individual NPDES permit. Discharges which **may** cause or contribute to **a violation and exceedance** of a water quality standard are not authorized by this permit.

In order to constitute a valid authorization, this permit must be complemented by a certificate of coverage (COC) issued by the Department and copies of both must be kept at the permitted CAFO. The following will be identified in the COC (as appropriate):

- The rainfall event size (25-year 24-hour or 100-year 24-hour rainfall) and magnitude at the production area.
- The date by which existing CAFOs shall attain six months **waste** storage (Part I.A.4.a.1)
- The date by which existing **waste** storage structures shall meet NRCS Practice Standard No. 313 ~~(Part I.A.4.a.2)b)B)ii~~ **& C)** along with a statement that specifies if the requirements specified in this permit or the requirements specified in the previous version of this permit, issued November 18, 2005, apply to existing **waste** storage structures.
- **The date by which the permittee shall cease using waste storage structures that do not meet standards and will not be upgraded [Part I.A.4.a.2)b)D)].**
- The date by which the permittee shall have an operator certified by the Department.
- ~~Maximum phosphorus land~~**Data for the** application rate tables for crops not ~~included~~**listed in the permit [Part I.A.4.b.7)c) of this permit.].**
- **Alternate land application rates and methodologies [Part I.A.4.b.7)c)].**
- Percent of outside materials allowed in the anaerobic digester associated with the CAFO permitted under this COC, if that percentage is greater than five **(Part I.B.10.)**.

Compliance dates in reissued COCs shall be carried over from the expiring COC.

Unless specified otherwise, all contact with the Department required by this permit shall be to the position indicated in the certificate of coverage.

This general permit shall take effect **April 1, 2010**. The provisions of this permit are severable. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules.

This general permit shall expire at midnight, **April 1, 2015**.

Issued _____.

version _____

~~8-20~~ **10-28-2009**

Daniel Dell, Chief

PERMIT FEE REQUIREMENTS

In accordance with Section 324.3120 of the Michigan Act, the permittee shall make payment of an annual permit fee to the Department for each October 1 the permit is in effect regardless of occurrence of discharge. The permittee shall submit the fee in response to the Department's annual notice. The fee shall be postmarked by January 15 for notices mailed by December 1. The fee is due no later than 45 days after receiving the notice for notices mailed after December 1.

CONTESTED CASE INFORMATION

The terms and conditions of this general permit shall apply to an individual facility on the effective date of a certificate of coverage for the facility. The Department of Energy, Labor, and Economic Growth may grant a contested case hearing on this general permit in accordance with the Michigan Act. Any person who is aggrieved by this permit may file a sworn petition with the State Office of Administrative Hearings and Rules of the Michigan Department of Energy, Labor, and Economic Growth, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Department of Energy, Labor, and Economic Growth may grant a contested case hearing on the certificate of coverage issued to an individual facility under this general permit in accordance with Rule 2192(c) (Rule 323.2192 of the Michigan Administrative Code).

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PART I

Section A. Effluent Limitations And Monitoring Requirements

1. Authorized Discharges and Overflows

During the period beginning on the effective date of this permit, and lasting until the expiration of this permit, the permittee is authorized to discharge the following, provided that the discharge does not cause or contribute to an exceedance of Michigan’s Water Quality Standards:

- a. CAFO waste in the overflow from the storage structures identified in Part I.A.4.a. below, when all of the following conditions are met:
 - 1) These structures are properly designed, constructed, operated and maintained.
 - 2) Either chronic or catastrophic precipitation events cause an overflow of the storage structures to occur.
 - 3) The production area is operated in accordance with the requirements of this permit.
- b. Precipitation ~~events that result in~~caused runoff from land application areas and areas listed in Part I.A.4.b.8) that are managed in accordance with the Nutrient Management Plan (NMP)(see Part I.A.4., below).

This permit does not authorize any discharge to the groundwaters. Such discharge may be authorized by a groundwater discharge permit issued pursuant to the Michigan Act.

2. Monitoring Discharges and Overflows from Storage Structures

The discharge authorized in Part I.A.1.a., above, shall be monitored four times daily (every six hours) by the permittee as specified below on any day when there is a discharge:

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Overflow Volume (at storage structure)	MGD	Report Total Daily Volume
Discharge to Surface Waters Volume	MGD	Report Total Daily Volume
Overflow Observation (at storage structure)	---	Report Visual Condition of the Overflow
Discharge to Surface Waters Observation	---	Report Unusual Physical Characteristics (see below)

Any ~~unusual~~physical characteristics of the discharge at the point of discharge to surface waters (i.e., unnatural turbidity, color, oil film, odor, floating solids, foams, settleable solids, suspended solids, or deposits) shall be reported concurrently with the discharge reporting required in Part II.C.6. and included in the discharge report required by Part I.B.1.

3. Prohibited Discharges

During the period beginning on the effective date of this permit, and lasting until the expiration of this permit, the permittee is prohibited from having any dry weather discharge or discharging any CAFO waste and/or runoff that fails to meet the requirements of Part I.A.1. An overflow that causes the washout or collapse of the storage structure dikes, sides or walls is not an authorized discharge. Discharges from land application activities that do not meet the requirements of Part I.A.1. or that cause an exceedance of Michigan’s Water Quality Standards are prohibited.

4. Nutrient Management Plan (NMP)

The permittee shall implement the following requirements.

- a. CAFO Waste Storage Structures
 - 1) Volume Design Requirements

The permittee shall have CAFO waste storage structures in place and operational at all times that are adequately designed, constructed, maintained and operated to contain the total combined volume of all of the following:

 - a) All CAFO waste generated from the operation of the CAFO in a six-month or greater time period (including normal precipitation and runoff in the production area during the same time period). This is the operational volume of the storage structure.
 - b) All production area waste from the rainfall event size specified below:

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Section A. Effluent Limitations And Monitoring Requirements

A) The permittee shall use the 25-year 24-hour rainfall event for cattle, horses and sheep and existing swine, poultry & veal facilities. Existing means populated prior to January 30, 2004.

B) The permittee shall use the 100-year 24-hour rainfall event for new swine, poultry & veal facilities. New means populated on or after January 30, 2004.

The magnitude of the rainfall event will be specified in the certificate of coverage. This is an emergency volume to be kept available to contain large rainfall events.

c) An additional design capacity of a minimum of 12 inches of freeboard for storage structures that are subject to precipitation caused runoff. For storage structures that are not subject to precipitation caused runoff, the freeboard shall be a minimum of 6 inches. This is the freeboard volume.

Records documenting the current design volume of any CAFO waste storage structures, including volume for solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity shall be ~~kept with~~**included in** the permittee's CNMP. For existing CAFOs, the COC will specify the date by which the permittee shall attain six months storage volume capacity, but that date shall be no more than three years after the COC issuance date. **CAFOs previously permitted under General Permit No. MIG019000, issued November, 2005, shall continue to be subject to any compliance dates set forth in the previously issued COC.**

2) Physical Design & Construction Requirements

a) Depth Gauge

CAFO waste storage structures shall include an easily visible, clearly marked depth gauge. Clear, major divisions shall be marked to delineate each of the three volumes specified above in Part I.A.4.a.1). The top mark of the gauge shall be placed level with the lowest point on the top of the storage structure wall or dike. The elevation for the gauge shall be re-established every five years to adjust for any movement or settling. Materials used must be durable and able to withstand freezing and thawing (examples: large chain, heavy-duty PVC, steel rod). Any depth gauges that are destroyed or missing must be replaced immediately. Under-barn storages may be measured with a dip-stick or similar device. For solid stackable CAFO waste storage, depth gauge levels may be permanently marked on sidewalls.

b) Structural Design

Records documenting **or demonstrating** the current structural design **as required below**, including as built drawings and specifications, of any CAFO waste storage structures, whether or not currently in use, shall be ~~kept with~~**included in** the permittee's CNMP until such structure is permanently closed in accordance with Part I.B.2.

A) New Storage Structures (constructed after the effective date of the COC)

Except as otherwise required by this permit, CAFO waste storage structures shall, at a minimum, be constructed in accordance with NRCS standards, set forth in Conservation Practice Standard No. 313, Waste Storage Facility, dated November 2005.

B) Existing Storage Structures at Newly Permitted CAFOs (facilities without prior NPDES permit coverage)

i) In a permit application for coverage under this permit, the applicant shall either:

(1) Provide documentation through an evaluation by a professional engineer that each existing storage structure is constructed in accordance with NRCS standards, set forth in Conservation Practice Standard No. 313, Waste Storage Facility, dated November 2005, or

(2) For each existing storage structure, demonstrate environmental performance equivalent to NRCS standards, set forth in Conservation Practice Standard No. 313, Waste Storage Facility, dated November 2005. The demonstration shall be accomplished through an evaluation by a professional engineer.

ii) If the applicant cannot provide the documentation or demonstration required by (1) or (2) above, the applicant may request that the COC specify a date by which the permittee shall provide storage structures that attain (1) above, but that date shall be no more than three years after the COC issuance date.

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C) Existing Storage Structures at Previously Permitted CAFOs
CAFOs previously permitted under General Permit No. MIG019000, issued November, 2005, shall comply with the requirements for storage structures as contained in that permit including NRCS standards, set forth in Conservation Practice Standard No. 313, Waste Storage Facility, dated June 2003 and any compliance dates set forth in the previously issued COC.

D) Existing Storage Structures not Meeting Standards

Usage, **for the storage of large CAFO waste**, of existing storage structures that do not meet the requirements above in Parts B) and C) and will not be upgraded **to meet NRCS 313 Standards by the date in the COC**, shall be discontinued by ~~the due date specified in the COC to provide storage structures that attain NRCS 313 Standards same date in accordance with Parts B) and C) above the COC~~. Such structures shall be **maintained or** permanently closed in accordance with Part I.B.2. **Records of usage, maintenance or closure shall be included in the CNMP.**

3) Inspection Requirements

The permittee shall inspect the CAFO waste storage structures a minimum of one time weekly year-round. ~~A record~~**An inspection plan and results** of the inspections shall be maintained by the permittee and ~~kept with~~**included in the CNMP. Individual results shall be kept** for a period of five years. These inspections shall include all of the following:

- a) The CAFO waste dikes for cracking, inadequate vegetative cover, woody vegetative growth, evidence of overflow, leaks, seeps, erosion, slumping, animal burrowing or breakthrough, and condition of the storage structure liner.
- b) The depth of the CAFO waste in the storage structure and the available operating volume as indicated by the depth gauge.
- c) The collection system, lift stations, mechanical and electrical systems, transfer stations, control structures and pump stations to assure that valves, gates and alarms are set correctly and all are properly functioning.

4) Operation & Maintenance Requirements

The permittee shall implement a Storage Structure Operation & Maintenance Program that incorporates all of the following management practices. The permittee shall initiate steps to correct any condition that is not in accordance with the Storage Structure Operation & Maintenance Program. A copy of the program, **along with specific records as specified below**, shall be ~~kept with~~**included in the CNMP.**

- a) In the event that a rainfall event causes the level of CAFO waste in the storage structure to rise above the maximum operational volume level and enter the emergency volume level, the Department shall be notified. The level in the storage structure shall be reduced within one week, unless a longer time period is authorized by the Department (the removed CAFO waste shall be land applied in accordance with this permit or the Department shall be notified if another method of disposal is to be used) and the emergency volume shall be restored. **Descriptions of such events shall be recorded in the CNMP.**
- b) At some point in time during the period of November 1 to December 31 of each year, there shall be a minimum available operational volume in the CAFO waste storage structures equal to the volume of CAFO waste generated from the operation of the CAFO in a six-month or greater time period (including normal precipitation and runoff in the production area during the same time period). The date of this occurring shall be recorded ~~and kept within~~ the CNMP.
- c) Vegetation shall be maintained at a height that stabilizes earthen CAFO waste storage structures, provides for adequate visual inspection of the storage structures, protects the integrity of the storage structure liners; and, the vegetation shall have sufficient density to prevent erosion.
- d) Dike damage caused by erosion, slumping or animal burrowing shall be corrected immediately and steps taken to prevent occurrences in the future.
- e) The integrity of the CAFO waste storage structure liner shall be protected. Liner damages shall be corrected immediately and steps taken to prevent future occurrences.

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- f) Problems with the collection system, lift stations, mechanical and electrical systems, transfer stations, control structures and pump stations shall be corrected as soon as possible. Records of these inspections and records documenting any actions taken to correct deficiencies shall be kept **within** the CNMP for a minimum of five years. Deficiencies not corrected within 30 days must be accompanied by an explanation of the factors causing the delayed correction.
- g) CAFO waste shall be stored only in storage structures as described above, except for solid stackable manure collected in-barn prior to transfer to storage.

b. Best Management Practices Requirements

The following are designed to achieve the objective of preventing unauthorized discharges to waters of the state from production areas and from land application activities.

1) Conservation Practices

The permittee shall maintain specific conservation practices near **or at** production areas ~~and~~, land application areas, **and heavy use areas within pastures associated with the CAFO** that are sufficient to control the runoff of pollutants to surface waters of the state in quantities that may cause or contribute to a violation of water quality standards. These practices shall be consistent with NRCS Conservation Practices **and in compliance with the requirements of this permit**. The permittee shall include within the CNMP a list of conservation practices used near **or at** production areas and land application areas. This list does not need to include temporary practices or other practices already required by this permit.

2) Divert Clean Water

The permittee shall design and implement structures and management practices to divert clean storm water and floodwaters to prevent contact with contaminated portions of the production areas. Clean storm water may include roof runoff, runoff from adjacent land, and runoff from feed or silage storage areas where such runoff has not contacted feed, silage or silage leachate. **Identify and describe in the CNMP structures and management practices used to divert clean water from the production area.**

3) Prevent Direct Contact of Animals with Waters of the State

There shall be no access of animals to surface waters of the state at the production area of the CAFO. The permittee shall develop and implement appropriate controls to protect water quality by preventing access of animals to waters of the state **and shall identify and describe such controls in the CNMP.**

4) Animal Mortality

The permittee shall handle and dispose of dead animals in a manner that prevents contamination of waters of the state. Mortalities must not be disposed of in any liquid CAFO waste or storm water storage structure ~~or treatment system that is not specifically designed to treat animal mortalities~~. Records of mortality management and practices shall be kept with the permittee's CNMP for a minimum of five years.

5) Chemical Disposal

The permittee shall prevent introduction of hazardous or toxic chemicals (for purposes of disposal) into CAFO waste storage structures. Examples of hazardous and toxic chemicals are pesticides and petroleum products/by-products. **Identify in the CNMP appropriate practices that ensure chemicals and other contaminants handled at the CAFO are not disposed CAFO waste or storm water storage or treatment system.**

6) Inspection, Proper Operation and Maintenance

The permittee shall **develop and** implement an inspection, operation and maintenance program that includes periodic visual inspection, proper operation, and maintenance of all CAFO waste handling equipment including piping and transfer lines, and all runoff management devices (e.g., cleaning separators, barnyards, catch basins, screens) to prevent unauthorized discharges to surface water and to groundwater. **A copy of the program shall be included in the CNMP.** Specific inspection requirements include, **but are not limited to**, all of the following:

- a) Weekly visual inspections of all clean storm water and floodwater diversion devices.

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- b) Daily visual inspections of water lines, including drinking water and cooling water lines, and above ground piping and transfer lines or an equivalent method of checking for water line leaks that incorporates the use of water meters, pressure gauges or some other monitoring method.
- c) Any deficiencies shall be corrected as soon as possible.
- d) Records of these inspections and records documenting any actions taken to correct deficiencies shall be kept **within** the CNMP for a minimum of five years. Deficiencies not corrected within 30 days must be accompanied by an explanation of the factors causing the delayed correction.

7) Land Application of CAFO Waste

a) Field-by-Field Assessment

The permittee shall conduct a field-by-field assessment of all land application areas. Each field shall be assessed prior to use for land application of CAFO waste. The assessment shall identify field specific conditions including, but not limited to, slopes, soil type, locations of tile outlets, tile risers and tile depth, conservation practices, and offsite conditions such as buffers and distance or conveyance to surface waters. The assessment shall also identify areas which, due to topography, activities, or other factors, have a potential for significant erosion. The results of this assessment, along with consideration of the form and source of the CAFO waste **and all nutrient inputs in addition to those from large CAFO waste**, shall be used to ensure that the amount, timing, and method of application of CAFO waste:

- A) does not exceed the capacity of the soil to assimilate the CAFO waste;
- B) is in accordance with field specific nutrient management practices that ensures appropriate agricultural utilization of the nutrients in the CAFO waste;
- C) **does not exceed the maximum annual land application rates specified in Part I.A.4.b.7)c), below.**
- D) will not result in unauthorized discharges.

Any new fields shall be assessed prior to their use for land application activities. The Department shall be notified of the new fields prior to their use through submittal of a permit modification request that includes the field-by-field assessment, a map showing the entire field, its size in acres, location information, planned crops, and realistic crop yield goals. The request will be public noticed. The permittee may not use the field until ~~its use is approved~~ **the permittee has been notified** by the Department **that processing of the permit modification is complete**. All assessments shall be kept in the CNMP. An assessment for a particular field can be deleted from the CNMP once that field is no longer used for land application.

b) Field Inspections

Prior to conducting land application of CAFO waste to fields determined to be suitable under Part I.A.4.b.7)a) above, the permittee shall perform the following inspections at the indicated frequency to ensure that unauthorized discharges do not occur as a result of the land application of CAFO waste. Records of inspections, monitoring and sampling required by this section shall be recorded in the Land Application Log required by Part I.A.4.b.7)~~gd~~.

- A) CAFO waste shall be sampled a minimum of once per year to determine nutrient content and analyzed for total Kjeldahl nitrogen (TKN), ammonium nitrogen, and total phosphorus. CAFO waste shall be sampled in a manner that produces a representative sample for analysis. Guidance for CAFO waste sampling protocols can be found in Bulletin NCR 567 available from Michigan State University Extension. Analytical methods shall be as required by Part II.B.2. The CAFO waste test results shall be used to determine land application rates **as described in c), below**. Record the nutrient levels, ~~and analysis methods used as basis for determining land application rates in the Land Application Log.~~ **and analysis methods used as basis for determining land application rates in the Land Application Log.**

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B) Soils at land application sites shall be sampled a minimum of once every three years, analyzed to determine phosphorus levels, and the soil test results shall be used to determine land application rates **as described in c), below**. Sample soil using an 8 inch vertical core, and take 20 or more cores in a random pattern spread evenly over each uniform field area. A uniform field area shall be no greater than 20 acres or it can be up to 40 acres if that field has one soil map unit and has been managed as a single field for the last ten years. The 20 cores shall be composited into one sample and analyzed using the Bray P1 method. Alternate methods may be used upon approval of the Department. Record the phosphorus levels **in the Land Application Log**. Additional information on soil sampling can be found in Michigan State University Extension Bulletins E2904 and E498.

C) The permittee shall inspect each field no earlier than 48 hours prior to each land application of CAFO waste to that field to evaluate the current suitability of the field for application. This inspection shall include, at a minimum, the state of all tile outlets, evidence of soil cracking, the moisture holding capacity of the soil, crop maturity, and the condition of designated conservation practices (i.e., grassed waterways, buffers, diversions). Results and findings of all inspections shall be recorded in the ~~land application log~~ **Land Application Log**.

D) The permittee shall visually inspect all tile outlets draining a given field immediately prior to the land application of CAFO wastes to that field. Tile outlets shall be inspected again upon the completion of the land application to the field, or at the end of the working day should application continue on that field for more than one day (include **in the Land Application Log** written descriptions of tile ~~inspections~~ **outlet inspection results**, and observe and compare color and odor **of tile outlet effluents** before and after land application).

E) All tiled fields to which CAFO wastes have been applied in the prior 30 days shall be visually inspected within 24 hours after the first rain event of one-half inch or greater, for signs of a discharge of CAFO waste. Written descriptions of tile inspections **results** shall be retained in the land application log. If an inspection reveals a discharge with color, odor, or other characteristics indicative of an unauthorized discharge of CAFO waste, then permittee shall immediately notify the Department of the suspected unauthorized discharge in accordance with the reporting procedures contained in Part II.C.6 **and record such findings in the Land Application Log**.

F) The permittee shall inspect all land application equipment daily during use for leaks, structural integrity, and proper operation and maintenance. Land application equipment shall be calibrated annually to ensure proper application rates. Written records of inspections and calibrations shall be retained in the ~~land application log~~ **Land Application Log**.

c) Maximum Annual ~~Phosphorus~~ Land Application Rates

The permittee shall comply with all of the following maximum annual ~~phosphorus~~ land application rates:

A) If the Bray P1 soil test result is 150 parts per million (~~PPM~~ **ppm**) or more, CAFO waste applications shall be discontinued until nutrient use by crops reduces the Bray P1 soil test result to less than 150 ~~PPM~~ **ppm P**.

B) If the Bray P1 soil test result is **75 ppm P or more but less than 150 PPM, CAFO waste ppm P**, application rates shall be based on the maximum rates of phosphorus (P) in annual pounds per acre as ~~indicated in the tables below. The permittee shall determine the appropriate maximum annual phosphorus application rate calculated~~ using the ~~Bray P1 soil test result and~~ **following formula:**

The realistic crop yield goal per acre, using the units specified in the table below, for the planned crop multiplied by the number in the P column for that crop.

The result is the maximum annual pounds per acre of P that may be applied for the first crop planned after application of CAFO waste:

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CORN GRAIN — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — bu/acre				
	100	120	140	160	180
0--5	38	42	44	49	51
6--14	27	31	33	38	40
15--149	16	20	22	27	29

CORN SILAGE — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — tons/acre				
	20	22	24	26	28
0--5	51	55	58	60	62
6--14	40	44	47	49	51
15--149	29	33	36	38	40

WHEAT GRAIN ONLY — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — bu/acre				
	50	60	70	80	90
0--15	36	40	42	44	47
16--24	25	29	31	33	36
25--149	14	18	20	22	25

ALFALFA — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — tons/acre				
	5	6	7	8	9
0--15	51	58	62	69	73
16--24	40	47	51	58	62
25--149	29	36	40	47	51

SOYBEANS — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — bu/acre				
	30	40	50	60	70
0--5	33	36	40	44	47
6--14	22	25	29	33	36
15--149	11	14	18	22	25

DRY BEANS — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — cwt/acre				
	20	30			
0--5	33	38			
6--14	22	27			
15--149	11	16			

POTATOES — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — cwt/acre				
	350	400	450		
0--20	108	111	114		
21--40	64	67	70		
41--149	20	23	26		

SUGAR BEETS — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — tons/acre				
	20	28			
0--10	55	60			
11--24	33	38			
25--149	11	16			

BARLEY — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — bu/acre				
	50	80			
0--5	31	36			
6--14	20	25			
15--149	9	14			

CLOVER or CLOVER-GRASS HAY — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — tons/acre				
	3	6			
0--9	51	68			
10--19	40	57			
20--149	18	35			

BROMEGRASS HAY — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — tons/acre				
	4	6			
0--5	45	57			
6--14	34	46			
15--149	23	35			

FRUIT TREES — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — bu/acre				

TOMATOES — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — tons/acre				

WHEAT GRAIN & STRAW — P lbs/acre/year					
Soil Test PPM P	Realistic crop yield goals — bu/acre				

~~C) — The maximum annual phosphorus land application rates in the tables above shall be achieved by using the CAFO waste test results to determine the amount of CAFO waste that may be land applied per acre per year.~~

Maximum annual phosphorus land application rates for crops not listed above shall be proposed in the permit application in a table format similar to the above. The Department will review the proposal and approved rates will be listed in the COC.

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~~. If the above rates are one year rate is impractical due to spreading equipment or crop production management, the permittee may request in the permit application that the COC include maximum phosphorus application rates equal apply up to the sum of the amount of phosphorus specified in the above tables for the next two crop years. The maximum phosphorus rates as specified in the COC, along with the CAFO waste test results, shall be used to determine the amount of CAFO waste that may be land of P at one time but no P may be applied per acre for the first crop year. No additional phosphorus can be applied to that field for the second crop year. Such applications shall be incorporated within 24 hours or injected and may not be used on shallow soils over bedrock. The two year P application rate shall be the results calculated using the formula above for each of the two crops planned for the next two years and those two annual results shall be added together to determine the maximum P application rate. In no case may the application rate exceed the nitrogen application rate as specified below.~~

C) If the Bray P1 soil test result is less than 75 ppm P, the annual rate of large CAFO waste application shall not exceed the nitrogen fertilizer recommendation (removal value for legumes) for the first crop year grown after the large CAFO waste is applied. In no case may the application rate exceed four years of P calculated using the formula in B) above for each of the four crops planned for the next four years and those four annual results shall be added together to determine the maximum application rate.

D) The maximum annual application rates as calculated above shall be achieved by using the CAFO waste test results for P or nitrogen to determine the amount of CAFO waste that may be land applied per acre per year.

P₂O₅ values are included for reference purposes.

Crop	Harvest Form	Unit of Realistic Yield Goal per Acre	P	P ₂ O ₅
			-- lb/unit of yield --	
Alfalfa	Hay	ton	5.72	13.1
Alfalfa	Haylage	ton	1.41	3.2
Apple	Fruit	ton	0.19	0.44
Asparagus	Shoots	ton	1.1	2.51
Barley	Grain	bushel	0.17	0.38
Barley	Straw	ton	1.41	3.2
Beans (dry edible)	Grain	cwt	0.53	1.2
Beans (green, fresh)	Pods	ton	1.22	2.8
Blueberry	Fruit	ton	0.20	0.46
Bromegrass	Hay	ton	5.72	13
Buckwheat	Grain	bushel	0.11	0.25
Canola	Grain	bushel	0.40	0.91
Carrots	Root	ton	0.79	1.81
Cherries (sour)	Fruit	ton	0.3	0.69
Cherries (sweet)	Fruit	ton	0.37	0.85
Clover	Hay	ton	4.4	10
Clover-grass	Hay	ton	5.72	13
Corn	Grain	bushel	0.16	0.37
Corn	Stover	ton	3.61	8.2
Corn	Silage	ton	1.45	3.3
Cucumbers	Fruit	ton	0.47	1.1
Grapes	Fruit	ton	0.26	0.6
Millet	Grain	bushel	0.11	0.25
Oats	Grain	bushel	0.11	0.25
Oats	Straw	ton	1.23	2.8
Orchardgrass	Hay	ton	7.48	17

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Peaches	Fruit	ton	0.24	0.55
Pears	Fruit	ton	0.23	0.53
Plums	Fruit	ton	0.2	0.46
Potato	Tubers	cwt	0.06	0.13
Rye	Grain	bushel	0.18	0.41
Rye	Straw	ton	1.63	3.7
Rye	Silage	ton	0.66	1.5
Sorghum	Grain	bushel	0.17	0.39
Sorghum-Sudangrass	Hay	ton	6.6	15
Sorghum-Sudangrass	Haylage	ton	2.02	4.6
Soybean	Grain	bushel	0.35	0.8
Spelts	Grain	bushel	0.17	0.38
Squash	Fruit	ton	0.76	1.74
Sugar beets	Roots	ton	0.57	1.3
Sunflower	Grain	bushel	0.53	1.2
Timothy	Hay	ton	7.48	17
Tomatoes	Fruit	ton	0.57	1.3
Trefoil	Hay	ton	5.28	12
Wheat	Grain	bushel	0.28	0.63
Wheat	Straw	ton	1.45	3.3

Numbers for the tables above for crops not listed above shall be proposed in the permit application in a format similar to the above. The Department will review the proposal and approved numbers will be listed in the COC.

The permittee may propose alternate land application rates and methodologies in the permit application. The Department will review the proposal and acceptable rates and methods will be included in the COC issued under this permit.

Methodology, calculations consistent with this Part, and their results shall be recorded in the Land Application Log.

d) Land Application Log

The results of land application inspections, monitoring, testing and record keeping shall be recorded in a "Land Application Log" which shall be kept up-to-date and included in the CNMP. Log records shall be kept for a minimum of five years. The permittee shall document in the log in writing, as a minimum, records required by Part I.A.4.b.7) and all of the following information and inspection results:

- A) The time, date, quantity, method, location and application rate for each location at which CAFO wastes are land applied.
- B) The crop, the realistic yield goal, and actual yield for each location at which CAFO wastes are land applied.**
- C) **Methodology** and calculations showing the total nitrogen and phosphorus to be applied to each field, identifying all sources of nutrients including sources other than CAFO waste.
- D) The total amount of nitrogen and phosphorus actually applied to each field irrespective of source, including documentation of calculations for the total amount applied.
- E) A written description of weather conditions at time of application and for 24 hours prior to and following application based on visual observation.
- F) Printouts of weather forecasts from the time of land application. Weather forecasts may also be saved as electronic files in which case the files do not need to be physically located in the land application log, but the log shall reference the location where the files are stored.

e) Prohibitions

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Section A. Effluent Limitations And Monitoring Requirements

Appropriate prohibitions, in compliance with the following, shall be included in the CNMP.

- A) CAFO waste shall not be applied on land that is flooded or saturated with water at the time of land application.
- B) CAFO waste shall not be applied during rainfall events.
- C) CAFO waste shall not be surface applied without incorporation to frozen or snow covered ground except in accordance with the Department 2005 Technical Standard for the Surface Application of CAFO Waste on Frozen or Snow-Covered Ground Without Incorporation or Injection (last page of this permit).
- D) CAFO ~~Waste shall not be stockpiled or stored in fields.~~

~~E) CAFO~~ waste application shall be delayed if rainfall exceeding one-half inch, or less if a lesser rainfall event is capable of producing an unauthorized discharge, is forecasted by the National Weather Service during the planned time of application and within 24 hours after the time of the planned application. Forecast models to be used can be found on the internet at <http://www.weather.gov/mdl/synop/products.php>. Model data to be used for one-half inch shall be:

GFS MOS (MEX) Text Message by Station Forecast: If the Q24 is 4 and the P24 is 70 or more for the same time period, or the Q24 is 5 or greater (with any P24 number), then CAFO waste land application shall be delayed until the Q24 is less than 4 or both the Q24 is less than 5 and the P24 is less than 70 for the same time period. The station to be used shall be that which is closest to the land application area. If no station is close, then use the closest 2 or 3 stations.

Different model data shall be used if it is determined that rainfall less than ½" on a particular field is capable of causing an unauthorized discharge. For example: using a Q24 rating of 3 or greater may be appropriate on higher risk fields. If the NWS website is revised and the required forecast models are not available, the permittee shall contact the Department for information on which forecast models to use. Instructions for using this website are available from the Department. Other forecast services may be used upon approval of the Department.

~~F) Digester effluents that have not been properly and successfully digested, and processed through the treatment system may not be land applied nor manifested for land application if the inputs to the digester treatment system include materials other than CAFO process wastewater, manure, production area waste, or agricultural biomass. Such effluents must be disposed of in accordance with applicable laws and regulations or they may be re-processed through a properly operating digester.~~

e

f) Methods

CAFO waste shall be subsurface injected or incorporated into the soil within 24 hours of application. CAFO waste subsurface injected into frozen or snow covered ground shall have substantial soil coverage of the applied CAFO waste. **Methods of application shall be specified in the CNMP.** The following exceptions apply **when applying no more the 1 crop year of P:**

- A) Injection or incorporation may not be feasible where CAFO wastes are applied to pastures or forage crops, such as alfalfa, wheat stubble or where no-till practices are used. CAFO waste may not be applied to pastures or forage crops, such as alfalfa, wheat stubble or where no-till practices are used where CAFO waste may enter waters of the state.
- B) On ground that is frozen or snow-covered, CAFO waste may be surface applied and not incorporated within 24 hours only if there is a field-by-field demonstration, in accordance with the Department 2005 Technical Standard for the Surface Application of CAFO Waste on Frozen or Snow-Covered Ground Without Incorporation or Injection (last page of this permit), showing that such land application will not result in a situation where CAFO waste may enter waters of the state. Demonstrations shall be kept with the Land Application Log and submitted to the Department prior to use of the field.

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~~f)C)~~ **Any large CAFO waste applications that supply more than 1 crop year of P shall be subsurface injected or incorporated within 24 hours without exception.**

g Setbacks

The permittee shall comply with any of the following setback requirements:

- A) CAFO waste shall not be applied closer than 100 feet to any ditches that are conduits to surface waters, ~~down~~**surface waters except for up**-gradient surface waters, open tile line intake structures, sinkholes, or agricultural well heads.
- B) The permittee may substitute the 100-foot setback required in A), above, with a 35-foot wide vegetated buffer. CAFO waste shall not be applied within the 35-foot buffer.
- C) CAFO waste shall not be applied within grassed waterways and swales that are conduits to surface waters.

Setbacks shall be measured from the ordinary high water mark, where applicable, or from the upper edge of the bank if the ordinary high water mark cannot be determined. **Setbacks for each field shall be shown in the CNMP.**

8) Non-Production Area Storm Water Management

The permittee shall implement practices including preventative maintenance, good housekeeping, and periodic inspections of at least once per year, to minimize and control pollutants in storm water discharges associated with the following areas:

- a) Immediate access roads and rail lines used or traveled by carriers of raw materials, waste material, or by-products used or created by the facility.
- b) Sites used for handling material other than CAFO waste.
- c) Refuse sites.
- d) Sites used for the storage and maintenance of material handling equipment.
- e) Shipping and receiving areas.

Records and descriptions of non-production area storm water management practices shall be included in the CNMP.

~~9) Heavy Use Pasture Areas~~

~~The permittee shall implement appropriate practices at heavy use areas within pastures associated with the CAFO to minimize and control the discharge of pollutants from such areas.~~

5. Comprehensive Nutrient Management Plan (CNMP)

The CNMP shall apply to both production areas and land application areas and shall be a written document that describes the practices, methods and actions the permittee takes to meet all of the requirements of the Nutrient Management Plan, Part I.A.4.

- a. Approval
The CNMP shall be approved by a Certified CNMP Provider.
- b. Submittal ~~and Contents~~
The CNMP shall be submitted to the Department with the application for coverage under this permit. The permittee is encouraged to submit all or parts of the CNMP in electronic form. Electronic form means a digital file in a standard, common format provided on a compact disc or other media readily readable by a Windows based personal computer.
- c. **Contents**
The CNMP submitted to the Department shall include:
 - 1) CAFO Waste Storage Structures - ensure adequate storage capacity of production area waste and CAFO process wastewater [Section A.4.a.]
 - a) Volume Design Requirements [Section A.4.a.1)]
Records documenting current design volume of any CAFO waste storage structures, including volume for solids accumulations, design treatment volume, total design volume, and approximate number of days of storage capacity.

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Section A. Effluent Limitations And Monitoring Requirements

- b) Physical Design and Construction Requirements [Section A.4.a.2]
Records documenting **or demonstrating** the current structural design, including as built drawings and specifications, of any CAFO waste storage structures, whether or not currently in use, **shall be included until such structure is permanently closed in accordance with Part I.B.2.**
- c) Inspection Requirements [Section A.4.a.3]
~~Weekly~~**An inspection plan and results of the inspections shall be maintained by the permittee and individual results shall be kept for waste storage structures a period of five years.**
- d) Operation and ~~maintenance~~**Maintenance** [Section A.4.a.4]
A copy of the Storage Structure Operation and Maintenance PlanProgram, along with specific records as specified below, shall be included in the CNMP.
- i. **Descriptions of rainfall events that cause the level of CAFO waste in the storage structure to rise above the maximum operational volume level and enter the emergency volume level.**
 - ii. **The date between November 1 to December 31 of each year, where a minimum available operational volume in the CAFO waste storage structures equal to the volume of CAFO waste generated from the operation of the CAFO in a six-month or greater time period was achieved.**
 - iii. **Records of inspections of the collection system, lift stations, mechanical and electrical systems, transfer stations, control structures and pump stations and records documenting any actions taken to correct deficiencies shall be kept in the CNMP for a minimum of five years. Deficiencies not corrected within 30 days must be accompanied by an explanation of the factors causing the delayed correction.**
- 2) Best Management Practices Requirements [Section A.4.b.]
- a) Conservation Practices [Section A.4.b.1]
~~Identify specific conservation practices used to control the runoff of pollutants.~~
The permittee shall include a list of conservation practices used near or at production areas and land application areas. This list does not need to include temporary practices or other practices already required by this permit.
- b) Divert Clean Water [Section A.4.b.2]
Identify **and describe** structures and management practices used to divert clean water from the production area.
- c) Prevent direct contact of confined animals with waters of the state in the production area [Section A.4.b.3]
~~Identify appropriate~~**The permittee shall identify and describe** controls used to ~~prevent animal~~**protect water quality by preventing** access **of animals** to waters of the state ~~in the production area.~~
- f) Animal Mortality [Section A.4.b.4]
~~Identify appropriate practices that ensure proper management of mortalities.~~
Records of mortality management and practices shall be kept for a minimum of five years.
- e) Chemical Disposal [Section A.4.b.5]
Identify appropriate practices that ensure chemicals and other contaminants handled at the CAFO are not disposed ~~of in any production area, CAFO process wastewater, waste~~ or storm water storage or treatment system.
- g) Inspection, Proper Operation and Maintenance [Section A.4.b.6]
~~Provide an~~**A copy of the** inspection, operation, and maintenance program for CAFO wastewater and runoff handling equipment and management devices **shall be included in the CNMP along with records of inspections and records documenting any actions taken to correct deficiencies shall be kept for a minimum of five years. Deficiencies not corrected within 30 days must be accompanied by an explanation of the factors causing the delayed correction.**
- h) Land application of CAFO Waste [Section A.4.b.7]
Provide a land application plan **and land application information** that includes:

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Section A. Effluent Limitations And Monitoring Requirements

- A) Field-by-field ~~assessment~~**assessments** of all land application areas.
- ~~B) Testing of production area waste and soils at land application sites.~~
- ~~C) Field Inspections~~**B) The Land Application Log which includes:**
- i. **Records of land application inspections, monitoring and sampling.**
 - ii. **Records of the CAFO waste testing nutrient levels and analysis methods.**
 - iii. **Records of the phosphorus levels from soil tests.**
 - iv. **Results of field inspections** prior to ~~and following~~**each** land application- ~~of CAFO waste.~~
 - v. ~~D) Inspections~~**Results and findings of tile outlet inspections including written observations and comparisons of color and odor of tile outlet effluents before and after land application.**
 - vi. **Inspection results for all tiled fields to which CAFO wastes have been applied after the first rain event of one-half inch or greater within 30 days of the application including records of any discharges with color, odor, or other characteristics indicative of an unauthorized discharge of CAFO waste.**
 - vii. **Results** of land application equipment **inspections.**
 - ~~E) Amount of CAFO wastes to be land applied on each field per acre per year.~~
 - viii. ~~F) The time, date, quantity, method, location and application rate for each location at which CAFO wastes are land applied.~~
 - ix. **The crop, the realistic yield goal, and actual yield for each location at which CAFO wastes are land applied.**
 - x. **Methodology and calculations showing the total nitrogen and phosphorus to be applied to each field, including sources other than CAFO waste.**
 - xi. **The total amount of nitrogen and phosphorus actually applied to each field irrespective of source, including documentation of calculations for the total amount applied.**
 - xii. **A written description of weather conditions at time of application and for 24 hours prior to and following application.**
 - xiii. **Printouts of weather forecasts or location of electronic files of weather forecasts from the time of land application.**
- ~~C) Appropriate prohibitions for land application.~~
- ~~G) Methods of application.~~
- ~~H) Setback requirements for each field.~~
- i) Non-Production Area Storm Water Management [Section A.4.b.8]
Identify appropriate non-production area storm water management practices.
 - ~~j) Heavy Use Pasture Areas [Section A.4.b.9]
Identify practices used to control contaminated runoff from heavy use pasture areas.~~

- d. Annual Review and Report
The permittee shall annually review the CNMP and update the CNMP as necessary to meet the requirements of Part I.A.4.

The permittee shall submit an annual report for the preceding January 1 through December 31 (~~calendar year~~**reporting period**) to the Department by April 1 of each year. The annual report shall be submitted on a form provided by the Department. The annual report shall include, but is not limited to, all of the following:

- 1) The average number of animals, maximum number of animals at any one time, and the type of animals, whether in open confinement or housed under roof (beef cattle, broilers, layers, swine weighing 55 pounds or more, swine weighing less than 55 pounds, mature dairy cows, dairy heifers, veal calves, sheep and lambs, horses, ducks, turkeys, other).
- 2) Estimated amount of total CAFO waste generated by the CAFO ~~in~~**during** the ~~previous 12 months~~**reporting period** (tons or gallons).
- 3) Estimated amount of total CAFO waste transferred to other persons by the CAFO ~~in~~**during** the ~~previous 12 months~~**reporting period** (tons or gallons) ~~and copies of all manifests for that transferred waste. Instead of submitting copies of all manifests, the permittee may submit a summary of manifesting activities on a form provided by the Department.~~

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- 4) Total number of acres for land application covered by the CNMP developed in accordance with this permit.
- 5) Total number of acres under control of the CAFO that were used for land application of CAFO waste ~~induring the previous 12 months~~**reporting period.**
- 6) A field specific spreading plan which identifies where and how much CAFO waste will be applied to fields for the upcoming 12 months, what crops will be grown on those fields, and the realistic crop yield goals of those crops. The plan must account for all CAFO waste expected to be generated in the upcoming 12 months.
- 7) The ~~summary of following~~ land application ~~activities.~~**records for the reporting period for each field harvested during the reported period which utilized nutrients from previously applied CAFO waste: actual crops planted; crop yield goals; actual crop yields; actual N and P content of land applied CAFO waste; calculations conducted and data used in accordance with Part I.A.4.b.7.c.; quantity of CAFO waste land applied; soil testing results; and, the amount of any supplemental fertilizer applied.**
- 8) A statement indicating whether the current version of the CAFO's CNMP was developed or approved by a certified CNMP provider.
- 9) A summary of all ~~production area CAFO waste and CAFO process wastewater~~ discharges from the production area that have occurred ~~in the previous 12 months~~**during the reporting period,** including date, time, and approximate volume.
- 10) Quantities and identity of non-CAFO waste materials added to the digester.
- ~~11) Crop yield goals and actual crop yields for~~ **during** the reporting period ~~for each field harvested during the reported period which utilized nutrients from previously applied CAFO waste.~~

e. CNMP Revisions

Prior to a significant change in the operation of the CAFO, whenever there is an unauthorized discharge (see Parts I.A.1. and I.A.3.) where future discharges could be prevented by revisions to the CNMP, or if the Department determines that the CNMP is inadequate in preventing pollution, the CNMP shall be revised and the revisions approved by a Certified CNMP Provider. Within ninety (90) days of a significant change, an unauthorized discharge or a Department requested revision; the revised portions of the CNMP shall be submitted to the Department with a copy of the Certified CNMP Provider certification that the revised CNMP has been approved. Revisions to the CNMP, especially due to a significant change, may result in a permit modification, **after opportunity for public comment.**

Significant change includes, but is not limited to, any of the following:

- 1) An increase in the number of animals that ~~is~~**results in a** greater than or equal to 10% ~~of~~ **increase in the number/volume of either the manure alone or the total CAFO waste generated per year as compared to the volumes** identified in the application, as a cumulative total over the life of the COC.
- 2) An increase in the number of animals that results in a decrease in the waste storage capacity time, as identified in the application, by 10% or greater, as a cumulative total over the life of the COC.
- 3) An increase in the number of animals where the CAFO waste generated by the livestock requires more land for its application than is available at the time of the increase.
- 4) A decrease in the number of acres available for land application, where the CAFO waste generated requires more land for application than will be available after the decrease.

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Section B. Other Requirements

1. Reporting of Overflows and Discharges from CAFO Waste Storage Structures and Land Application

If, for any reason, there is an overflow from CAFO waste storage structures and/or a discharge of pollutants to a surface water of the state from CAFO waste storage structures, production areas, or land application areas, the permittee shall report the overflow and/or discharge to the Department in accordance with the reporting procedures contained in Part II.BC.6. Discharges to surface waters shall also be reported to the Clerk of the local unit of government and the county health department. In addition, the permittee shall keep a copy of the report together with the approved CNMP. The report shall include all of the following information:

- a. A description of the overflow and/or discharge and its cause, including a description of the flow path to the surface water of the state.
- b. The period of overflow and/or discharge, including exact dates and times, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate and prevent recurrence of the overflow and/or discharge.
- c. Monitoring results as required by Part I.A.2.
- d. In the event of a discharge through tile lines, the permittee shall identify and document, for field(s) from which the discharge occurred, the location of tile and depth of tile. The permittee shall also document field conditions at the time of the discharge, determine why the discharge occurred and how to prevent future discharges.
- e. If the permittee believes that the discharge is an authorized discharge, then the permittee shall include a demonstration that the discharge meets the requirements of Part I.A.1.a. and/or Part I.A.1.b., as appropriate.

2. Closure of Structures and Facilities

The following conditions shall apply to the closure of lagoons, CAFO waste storage structures, earthen or synthetic lined basins, other manure and wastewater facilities, and silage facilities (collectively referred to as "structure(s)" for the remainder of this Part):

No structure shall be permanently abandoned. Structures shall be maintained at all times until closed in compliance with this section. All structures must be properly closed if the permittee ceases operation. In addition, any structure that is not in use for a period of twelve consecutive months must be properly closed unless the permittee intends to resume use of the structure at a later date, and either: (a) maintains the structure as though it were actively in use, to prevent compromise of structural integrity and assure compliance with final effluent limitations, or (b) removes CAFO waste to a depth of one foot or less and refills the structure with clean water to preserve the integrity of the synthetic or earthen liner. In either case, the permittee shall conduct routine inspections, maintenance, and record-keeping **in compliance with this permit** as though the structure were in use. The permittee shall notify the Department in writing prior to closing structures, or upon making a determination that the structures will be maintained as specified in (a) or (b) above. Prior to restoration of use of the structure, the permittee shall notify the Department in writing and provide the opportunity for inspection.

The permittee shall accomplish closure by removing all waste materials to the maximum extent practicable. This shall include agitation and the addition of clean water as necessary to remove the waste materials. The permittee shall utilize as guidance the closure techniques contained in NRCS Conservation Practice Standard No. 360, Closure of Waste Impoundments. All removed materials shall be utilized or disposed of in accordance with the permittee's approved CNMP, unless otherwise authorized by the Department.

Unless the structure is being maintained for possible future use in accordance with the requirements above, completion of closure for structures shall occur as promptly as practicable after the permittee ceases to operate or, if the permittee has not ceased operations, 12 months from the date on which the use of the structure ceased, unless otherwise authorized by the Department.

3. Standards, Specifications and Practices

The published standards, specifications and practices referenced in this permit are those which are in effect upon the effective date of this permit, unless otherwise provided by law. NRCS Conservation Practice Standards referred to in this permit are currently contained in Section IV, Practice Standards and Specifications, of the Michigan NRCS Field Office Technical Guide.

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Section B. Other Requirements

4. Facility Contact

The "Facility Contact" was specified in the application. The permittee may replace the facility contact at any time, and shall notify the Department in writing within 10 days after replacement (including the name, address and telephone number of the new facility contact). **The Department shall be notified in writing within 10 days after a change in any of the contact information (such as address or telephone number) from what was specified in the application.**

- a. The facility contact shall be any of the following (or a duly authorized representative of this person):
 - For a corporation or a company, a principal executive officer of at least the level of vice president, or a designated representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the permit application or other NPDES form originates.
 - For a partnership, a general partner.
 - For a sole proprietorship, the proprietor.
 - For a municipal, state, or other public facility, either a principal executive officer, the mayor, village president, city or village manager or other duly authorized employee.
- b. A person is a duly authorized representative only if both of the following requirements are met:
 - The authorization is made in writing to the Department by a person described in paragraph a. of this section.
 - The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the facility (a duly authorized representative may thus be either a named individual or any individual occupying a named position).

Nothing in this section obviates the permittee from properly submitting reports and forms as required by law.

5. Expiration and Reissuance

On or before October 1, 2014 a permittee seeking continued authorization under this permit beyond the permit's expiration date shall submit to the Department a written application containing such information, forms and fees as required by the Department. Without an adequate application, a permittee's authorization will expire on April 1, 2015. With an adequate application, a permittee shall continue to be subject to the terms and conditions of the expired permit until the Department takes action on the application unless this permit is terminated or revoked. However, the permittee need not seek continued permit coverage or reapply for a permit if both of the following apply:

- a. The facility has ceased operation or is no longer a CAFO.
- b. The permittee has demonstrated to the satisfaction of the Department that there is no remaining potential for a discharge of CAFO waste that was generated while the operation was a CAFO.

If this permit is terminated or revoked, all authorizations to discharge under the permit shall expire on the date of termination or revocation.

If this permit is modified, the Department will notify the permittee of any required action. Without an adequate response, a permittee's authorization to discharge will terminate on the effective date of the modified permit. With an adequate response, a permittee shall be subject to the terms and conditions of the modified permit on the effective date of the modified permit unless the Department notifies the permittee otherwise.

If the facility has ceased operation or is no longer a CAFO, the permittee shall request termination of authorization under this permit.

6. Compliance Dates for Existing Permittees

Compliance dates and associated requirements for permittees covered under the version of this permit issued November 18, 2005 shall be carried over, shall remain in effect, and shall be specified in certificates of coverage issued under this permit.

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Section B. Other Requirements

7. Requirement to Obtain Individual Permit

The Department may require any person who is authorized to discharge by a certificate of coverage and this permit, to apply for and obtain an individual NPDES permit if any of the following circumstances apply:

- a. the discharge is a significant contributor to pollution as determined by the Department on a case-by-case basis;
- b. the discharger is not complying or has not complied with the conditions of the permit;
- c. a change has occurred in the availability of demonstrated technology or practices for the control or abatement of waste applicable to the point source discharge;
- d. effluent standards and limitations are promulgated for point source discharges subject to this permit; and
- e. the Department determines that the criteria under which the permit was issued no longer apply.

Any person may request the Department to take action pursuant to the provisions of Rule 2191 (Rule 323.2191 of the Michigan Administrative Code).

8. Requirements for Land Application Not Under the Control of the CAFO Permittee

In cases where CAFO waste is sold, given away or otherwise transferred to another person (recipient) such that the land application of that CAFO waste is no longer under the operational control of the CAFO owner or operator that generates the CAFO waste (generator), a manifest shall be completed and used to track the transfer and use of the CAFO waste.

- a. Prior to transfer of the CAFO waste, the CAFO owner or operator shall do all of the following:
 - 1) Prepare a manifest for tracking the CAFO waste before transferring the CAFO waste.
 - 2) Designate on the manifest the recipient of the CAFO waste.
- b. The generator shall use a manifest form which is approved by the Department and which provides for the recording of all of the following information:
 - 1) A manifest document number.
 - 2) The generator's name, mailing address, and telephone number.
 - 3) The name and address of the recipient of the CAFO waste.
 - 4) The nutrient content of the CAFO waste to be transferred, in sufficient detail to determine the appropriate land application rates.
 - 5) The total quantity by units of weight or volume and the number and size of the loads or containers used to transfer that quantity of CAFO waste.
 - 6) A statement that informs the recipient of his/her responsibility to properly manage the land application of the CAFO waste as necessary to assure there is no illegal discharge of pollutants to waters of the state.
 - 7) The following certification by the generator: "I hereby declare that the CAFO waste is accurately described above and is suitable for land application."
 - 8) Other certification statements as may be required by the Department.
 - 9) The address or other location description of the site or sites used by the recipient for land application or other disposal or use of the CAFO waste.
 - 10) Signatures of the generator and recipient with dates of signature.
- c. The generator shall do all of the following with respect to the manifest:
 - 1) Sign and date the manifest certification prior to transfer of the CAFO waste.
 - 2) Obtain a dated signature of the recipient on the manifest and the date of acceptance of the CAFO waste.
 - 3) Retain a copy of the signed manifest.
 - 4) Provide a signed copy to the recipient.
 - 5) Advise the recipient of his or her responsibilities to complete the manifest and, if not completed at time of delivery, return a copy to the generator within 30 days after completion of the land application or other disposal or use of the CAFO waste.
- d. One manifest may be used for multiple loads or containers of the same CAFO waste transferred to the same recipient. The manifest shall list separately each address or location used by the recipient for land application or other disposal or use of the CAFO waste. Each different address or location listing shall include the quantities of CAFO waste transferred to that location and dates of transfer.
- e. The generator shall not sell, give away or otherwise transfer CAFO waste to a recipient if any of the following are true:

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Section B. Other Requirements

- 1) The recipient fails or refuses to provide accurate information on the manifest in a timely manner.
 - 2) The use or disposal information on the manifest indicates improper land application, use or disposal;
 - 3) The generator learns that there has been improper land application, use or disposal of the manifested CAFO waste.
 - 4) The generator has been advised by the Department that the Department or a court of appropriate jurisdiction has determined that the recipient has improperly land applied, used, or disposed of a manifested CAFO waste.
- f. If the generator has been prohibited from selling, giving or otherwise transferring CAFO waste to a particular recipient under Part I.B.8.e., above, and the generator wishes to resume selling, giving or otherwise transferring CAFO waste to that particular recipient, then the one of the following shall be accomplished:
- 1) For improper paperwork only, such as incomplete or inaccurate information on the manifest, the recipient must provide the correct, complete information.
 - 2) For improper land application, use or disposal of the CAFO waste by the recipient, the generator must demonstrate, in writing, to the Department that the improper land application, use or disposal has been corrected, and the Department has provided approval of the demonstration.
- g. All manifests shall be kept on-site with the CAFO owner or operator's CNMP for a minimum of five years and made available to the Department upon request.
- h. The requirements of Part I.B.8. do not apply to quantities of CAFO waste less than one pickup truck load, one cubic yard, or one ton per recipient per day.

9. Water Quality Impaired Waters

- a. Nitrogen or Phosphorus Impairment
If the permittee's production area or land application areas are located within the watershed where there is an approved Total Maximum Daily Load (TMDL), where the impairment is due to nitrogen or phosphorus, the Department will ~~notify~~**consult with** the permittee if any ~~additional limits or controls~~**reasonable and economically achievable actions that** are necessary for the discharge to be consistent with the assumptions of any available wasteload allocation in the approved TMDL ~~or are necessary to meet water quality standards. Any additional limits or controls.~~ **Implementation of and compliance with any such reasonable and economically achievable actions** shall be described in a document prepared by the permittee and kept with the CNMP. **The Department may require revisions to the document and the COC will specify a due date for the document.** Such ~~additional limits or controls~~**reasonable and economically achievable actions** shall be implemented within one year of COC issuance.
- b. E. coli, Biota, or Dissolved Oxygen Impairment
The Department will ~~notify~~**consult with** the permittee if the permittee's production area or land application areas are located within the watershed where there is an approved TMDL where the impairment is due to E. coli, biota, or dissolved oxygen. In a document prepared by the permittee and kept with the CNMP, the permittee shall identify and prioritize **reasonable and economically achievable** actions, ~~and include any additional limits or controls,~~ that are necessary for the discharge to be consistent with the assumptions of any available wasteload allocation in an approved TMDL ~~or are necessary to meet water quality standards.~~ **The Department may require revisions to the document and the COC will specify a due date for the document.** Such **reasonable and economically achievable** actions, ~~limits or controls~~ shall be implemented within one year of COC issuance.

10. Treatment System

The CAFO may include an anaerobic digester based treatment system. Such a system may be owned and operated by a third party. The application for coverage under this permit shall include ~~plans and specifications for a description of the construction, and operation and maintenance of an the~~ anaerobic digester based treatment system. ~~These plans and specifications shall include at a minimum:~~

- ~~a. A description of the type of anaerobic digestion system to be used, the components and operation of the treatment system, and the inputs, projected outputs and planned use of those outputs from the treatment system (i.e.: biogas to be sold as natural gas or used to produce electricity, water for irrigation, saleable soil amendment, materials for ethanol production, etc.);~~
- ~~b. A including a schematic or flow diagram of the process;~~

PART I

Section B. Other Requirements

~~Contingency and a contingency plan for operation~~ in the event of system failures including computer ~~malfunctions and malfunctions~~. **The contingency plan shall address the actions to taken by the permittee** if the ~~digestion~~**digester based treatment** system must be by-passed for any reason, including handling **and storage** of partially digested contents, ~~and process for re-starting the anaerobic digester.~~

Up to 5% of outside materials (non-CAFO waste), or up to 20% if specifically authorized in a COC issued under this permit, may be added to the digester to enhance operation. All outside materials shall be identified in the application and the Department may prohibit the use of certain materials. The permittee shall report to the Department in the annual report the quantities and identity of outside materials added to the digester. Outside materials not listed in the application shall not be added to the digester without prior approval from the Department. The outputs from the treatment system shall be stored and managed in accordance with the permit, ~~either transfer or sale via the manifest process or land applied by the permittee in accordance with permit conditions, except as prohibited by Part I.A.4.b.7)d)F~~. The digester shall be operated consistently with the information provided in the application for coverage under this permit ~~and in compliance with the "Organic Residuals Exemption On-Farm (Anaerobic Digestion)" issued by the Department and dated February 3, 2009 and subsequent revisions.~~

11. Document Availability

Copies of all documents required by this permit, including the CNMP, Land Application Log, inspection records, etc. shall be kept at the permitted farm and made available to the Department upon request.

PART II

Section A. Definitions

~~Agricultural biomass means crop residuals, ethanol syrup, and pre-process agricultural byproducts which includes peelings, cores and off specification fruits and vegetables from food processors. Agricultural biomass does not include any animal based products, byproducts or processing residuals or wastes.~~

Animal feeding operation (AFO) means a lot or facility that meets both of the following conditions:

1. Animals, other than aquatic animals, have been, are, or will be stabled or confined and fed or maintained for a total of 45 calendar days or more in any 12-month period.
2. Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over the portion of the lot or facility where animals are confined.

Two or more AFOs under common ownership are considered to be a single AFO if they adjoin each other or if they use a common area or system for the disposal of wastes. Common area includes land application areas.

CAFO process wastewater means water directly or indirectly used in the operation of a CAFO for any of the following:

1. Spillage or overflow from animal or poultry watering systems.
2. Washing, cleaning, or flushing, pens, barns, manure pits, or other AFO facilities.
3. Direct contact swimming, washing, or spray cooling of animals.
4. Dust control.
5. Any water which comes into contact with, or is a constituent of, any raw materials, products, or byproducts including manure, litter, feed, milk, eggs, or bedding.

Catastrophic precipitation event is equal to or greater in size than a 25-year or 100 year (as applicable), 24-hour rainfall event. Catastrophic events include tornadoes, hurricanes, or other catastrophic conditions that would cause an overflow from the CAFO waste storage structure that is designed, constructed, operated, and maintained to meet all the requirements of this permit.

Certified CNMP Provider is a person that attains and maintains certification requirements through a program approved by the United States Department of Agriculture Natural Resources Conservation Service (NRCS).

Chronic precipitation event is a series of wet weather conditions, including snowmelt, that precludes reducing the volume of CAFO waste storage structures and that cause an overflow from the CAFO waste storage structure that is designed, constructed, operated, and maintained to meet all the requirements of this permit.

CNMP means Comprehensive Nutrient Management Plan and is the plan developed by the permittee to implement the requirements of the NMP.

Department means the Michigan Department of Environmental Quality.

Discharge as used in this permit means the addition of any waste, waste effluent, wastewater, pollutant, or any combination thereof to any surface water of the state.

Grassed waterway means a natural or constructed channel for storm water drainage, that originates and is located within a field used for growing crops, that is used to carry surface water at a non-erosive velocity to a stable outlet and is established with suitable and adequate permanent vegetation.

Incorporation means a mechanical operation that physically mixes the surface applied CAFO waste into the soil so that a significant amount of the surface applied CAFO waste is not present on the land surface within one hour after mixing. Incorporation also means the soaking into the soil of "liquids being used for irrigation water" such that liquids and significant solid residues do not remain on the land surface. "Liquids being used for irrigation water" are contaminated runoff, milk house waste, or liquids from CAFO waste treated to separate liquids and solids. "Liquids being used for irrigation water" does not include untreated liquid manures.

Land application means spraying or spreading of biosolids, CAFO waste, wastewater and/or derivatives onto the land surface, injecting below the land surface, or incorporating into the soil so that the biosolids, CAFO waste, wastewater and/or derivatives can either condition the soil or fertilize crops or vegetation grown in the soil.

Land application area means land under the control of an AFO owner or operator, whether it is owned, rented, leased, or subject to an access agreement to which CAFO waste is or may be applied. Land application area includes land not owned by the AFO owner or operator but where the AFO owner or operator has control of the land application of CAFO waste.

PART II

Section A. Definitions

CAFO waste means CAFO process wastewater, manure, production area waste, effluents from the properly and successfully operated treatment system or any combination thereof.

Large concentrated animal feeding operation or CAFO is an AFO that stables or confines as many as or more than the numbers of animals specified in any of the following categories:

1. 700 mature dairy cattle (whether milked or dry cows).
2. 1000 veal calves.
3. 1,000 cattle other than mature dairy cows or veal calves. Cattle includes heifers, steers, bulls, calves and cow/calf pairs.
4. 2,500 swine each weighing 55 pounds or more.
5. 10,000 swine each weighing less than 55 pounds.
6. 500 horses.
7. 10,000 sheep or lambs.
8. 55,000 turkeys.
9. 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system.
10. 125,000 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system.
11. 82,000 laying hens, if the AFO uses other than a liquid manure handling system.

As used in this permit the term "CAFO" includes any animal feeding operation that requests coverage under the permit for which the Department determines that this permit is appropriate for the applicant's operation. A CAFO includes both production areas and land application areas.

Manure means animal excrement and is defined to include bedding, compost and raw materials or other materials commingled with animal excrement or set aside for disposal.

Maximum Annual Phosphorus Land Application Rate means the maximum quantity, per calendar year, of phosphorus (usually expressed in pounds per acre) that is allowed to be applied to crop fields where CAFO waste is spread, including the phosphorus contained in the CAFO waste.

MGD means million gallons per day.

New CAFO means a CAFO that is newly built and was not in production (i.e., animals were not on site) prior to ~~February 27~~ **January 30**, 2004. New CAFO also means existing facilities where, due to expansion in production, the process or production equipment is totally replaced or new processes are added that are substantially independent of an existing source at the same site, after February 27, 2004. This does not include replacement due to acts of God or upgrades in technology that serve the existing production.

NMP means Nutrient Management Plan and is the requirements in the permit that set forth conditions to assure that water quality standards are met.

NRCS means the Natural Resources Conservation Service of the United States Department of Agriculture.

Overflow means a release of CAFO waste resulting from the filling of CAFO waste storage structures beyond the point at which no more CAFO waste, or storm water can be contained by the structure.

Pasture land is land that is primarily used for the production of forage upon which livestock graze. Pasture land is characterized by a predominance of vegetation consisting of desirable forage species. Sites such as loafing areas, confinement areas, or feedlots which have livestock densities that preclude a predominance of desirable forage species are not considered pasture land. Heavy use areas within pastures adjacent to, or associated with, the CAFO are part of the pasture and are not part of the production area. Examples of heavy use areas include livestock travel lanes and small areas immediately adjacent to feed and watering stations.

PART II

Section A. Definitions

Production area is the portion of the CAFO that includes all areas used for animal product production activities. This includes, but is not limited to: the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal confinement area includes open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milk rooms, milking centers, cow yards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes feed silos, silage bunkers, and bedding materials. The waste containment area includes settling basins, and areas within berms and diversions which separate uncontaminated storm water. Also included in the definition of "production area" is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities. Production ~~area~~ areas do not include pasture lands or land application areas.

Production area waste means manure and any waste from the production area and any precipitation (e.g., rain or snow) which comes into contact with, or is contaminated by, manure or any of the components listed in the definition for "production area". Production area waste also includes contaminated runoff from digester and treatment system areas. Production area waste does not include clean water that is diverted nor does it include water from land application areas.

Realistic crop yield goals means **expected** crop ~~yield goals~~ **established yields** based on soil productivity potential, the crop management practices utilized and crop yield records for multiple years for the field. Yield goals shall be adjusted to counteract unusually low or high yields. When a field's history is not available, another referenced source shall be used to estimate yield goal. A realistic crop yield goal is one which is achievable in three out of five crop years. If the goal is not achieved in at least three out of five years, then the goal shall be re-evaluated and revised.

Regional Administrator is the Region 5 Administrator, U.S. EPA, located at R-19J, 77 W. Jackson Blvd., Chicago, Illinois 60604.

Silage leachate means a liquid, containing organic constituents, that results from the storage of harvested plant materials, which usually have a high water content.

Solid stackable manure means manure and manure mixed with bedding that can be piled up or stacked and will maintain a piled condition. It will also have the characteristic that it can be shoveled with a pitchfork.

Swale means a shallow, channel-like linear depression, within a field used for growing crops, that is at a low spot on a hillslope and is used to transport storm water. It may or may not be vegetated.

Waste storage structure means both pond-type storage structures and fabricated storage structures.

Tile means a conduit, such as corrugated plastic tubing, tile, or pipe, installed beneath the ground surface to collect and/or convey drainage water.

Vegetated buffer means a narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching surface waters.

Water Quality Standards means the Part 4 Water Quality Standards developed under Part 31 of Act No. 451 of the Public Acts of 1994, as amended, being Rules 323.1041 through 323.1117 of the Michigan Administrative Code.

25-year, 24-hour rainfall event or **100-year, 24-hour rainfall event** means the maximum 24-hour precipitation event with a probable recurrence interval of once in 25 years or 100 years, respectively, as defined by the "Rainfall Frequency Atlas of the Midwest", Huff and Angel, Illinois State Water Survey, Champaign, Bulletin 71, 1992, and subsequent amendments, or equivalent regional or state rainfall probability information developed there from.

PART II

Section B. Monitoring Procedures

1. Representative Monitoring and Sampling

Monitoring shall be representative of the monitored activity. Samples and measurements taken as required herein shall be representative of both the CAFO waste that is applied to the land and the soils that receive the CAFO waste.

2. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to Section 304(h) of the Federal Act (40 CFR Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants), unless specified otherwise in this permit. Requests to use test procedures not promulgated under 40 CFR Part 136 for pollutant monitoring required by this permit shall be made in accordance with the Alternate Test Procedures regulations specified in 40 CFR 136.4. These requests shall be submitted to the Chief of the Permits Section, Water Bureau, Michigan Department of Environmental Quality, P.O. Box 30273, Lansing, Michigan, 48909-7773. The permittee may use such procedures upon approval.

The permittee shall periodically calibrate and perform maintenance procedures on all analytical instrumentation at intervals to ensure accuracy of measurements. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

3. Instrumentation

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring instrumentation at intervals to ensure accuracy of measurements.

4. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information: 1) the exact place, date, and time of measurement or sampling; 2) the person(s) who performed the measurement or sample collection; 3) the dates the analyses were performed; 4) the person(s) who performed the analyses; 5) the analytical techniques or methods used; 6) the date of and person responsible for equipment calibration; and 7) the results of all required analyses.

5. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of ~~three~~ **(3five (5))** years, or longer if requested by the Regional Administrator or the Department.

PART II

Section C. Reporting Requirements

1. Start-up Notification

If the permittee will not populate with animals during the first 60 days following the effective date of **the certificate of coverage issued under** this permit, ~~then~~ the permittee shall notify the Department within 14 days following the effective date of **the certificate of coverage issued under** this permit, ~~and then~~. **Subsequently, the Department shall be notified** 60 days prior to population with animals.

2. Submittal Requirements for Self-Monitoring Data

Part 31 of Act 451 of 1994, as amended, specifically Section 324.3110(3) and Rule 323.2155(2) of Part 21 allows the department to specify the forms to be utilized for reporting the required self-monitoring data. Unless instructed on the effluent limitations page to conduct "Retained Self Monitoring" the permittee shall submit self-monitoring data via the Michigan DEQ Electronic Environmental Discharge Monitoring Reporting (e2-DMR) system.

The permittee shall utilize the information provided on the e2-Reporting website @ <https://secure1.state.mi.us/e2rs/> to access and submit the electronic forms. Both monthly summary and daily data shall be submitted to the department no later than the **20th day of the month** following each month of the authorized discharge period(s).

3. Retained Self-Monitoring Requirements

The permittee shall maintain with the CNMP a year-to-date log of inspection, monitoring and record keeping results required by this permit and, upon request, provide such log for inspection to the staff of the Department. Such inspection, monitoring and record keeping results shall be submitted to the Department upon request.

The permittee shall certify, in writing, to the Department, on or before April 1st of each year, that: 1) all retained self-monitoring requirements have been complied with and a year-to-date log has been maintained; and 2) the application on which this permit is based still accurately describes the animal feeding operation.

Retained self-monitoring may be denied to a permittee by notification in writing from the Department. In such cases, the permittee shall submit self-monitoring data in accordance with Part II.C.2., above. Such a denial may be rescinded by the Department upon written notification to the permittee.

Reissuance or modification of this permit or reissuance or modification of an individual permittee's authorization to discharge shall not affect previous approval or denial for retained self-monitoring unless the Department provides notification in writing to the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

5. Compliance Dates Notification

Within 14 days of every compliance date specified in this permit, the permittee shall submit a written notification to the Department indicating whether or not the particular requirement was accomplished. If the requirement was not accomplished, the notification shall include an explanation of the failure to accomplish the requirement, actions taken or planned by the permittee to correct the situation, and an estimate of when the requirement will be accomplished. If a written report is required to be submitted by a specified date and the permittee accomplishes this, a separate written notification is not required.

PART II

Section C. Reporting Requirements

6. Discharge and Noncompliance Reporting

Compliance with all applicable requirements set forth in the Federal Act, Parts 31 and 41 of the Michigan Act, and related regulations and rules is required. All instances of discharge or noncompliance shall be reported as follows:

- a. 6-hour reporting – Any discharge shall be reported, verbally, as soon as practicable but no later than 6 hours from the time the permittee becomes aware of the discharge. A written report shall also be provided within five (5) days.
- b. other reporting - The permittee shall report, in writing, all other instances of noncompliance not described in a. above at the time monitoring reports are submitted; or, in the case of retained self-monitoring or inspection results or records, within five (5) days from the time the permittee becomes aware of the noncompliance.

Written reporting shall include: 1) a description of the discharge and/or cause of noncompliance and steps taken to correct the noncompliance; and 2) the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge. All reporting shall be to all of the following: the Department, the clerk of the local unit of government and the county health department. Verbal reporting to the Department after regular working hours shall be made by calling the Department's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660). Verbal reporting to the clerk of the local unit of government and the county health department after regular working hours shall be made as soon as those agencies are next open for business unless those agencies provide after hours contact information.

7. Spill Notification

The permittee shall immediately report any release of any polluting material which occurs to the surface waters or groundwaters of the state, unless the permittee has determined that the release is not in excess of the threshold reporting quantities specified in the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code), by calling the Department at the number indicated in the certificate of coverage, or if the notice is provided after regular working hours call the Department's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660).

Within ten (10) days of the release, the permittee shall submit to the Department a full written explanation as to the cause of the release, the discovery of the release, response (clean-up and/or recovery) measures taken, and preventative measures taken or a schedule for completion of measures to be taken to prevent reoccurrence of similar releases.

8. Upset Noncompliance Notification

If a process "upset" (defined as an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee) has occurred, the permittee who wishes to establish the affirmative defense of upset, shall notify the Department by telephone within 24-hours of becoming aware of such conditions; and within five (5) days, provide in writing, the following information:

- a. that an upset occurred and that the permittee can identify the specific cause(s) of the upset;
- b. that the permitted wastewater treatment facility was, at the time, being properly operated; and
- c. that the permittee has specified and taken action on all responsible steps to minimize or correct any adverse impact in the environment resulting from noncompliance with this permit.

In any enforcement proceedings, the permittee, seeking to establish the occurrence of an upset, has the burden of proof.

PART II

Section C. Reporting Requirements

9. Bypass Prohibition and Notification

- a. Bypass Prohibition - Bypass is prohibited unless:
 - 1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - 2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass; and
 - 3) the permittee submitted notices as required under 9.b. or 9.c. below.
- b. Notice of Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least ten (10) days before the date of the bypass, and provide information about the anticipated bypass as required by the Department. The Department may approve an anticipated bypass, after considering its adverse effects, if it will meet the three (3) conditions listed in 9.a. above.
- c. Notice of Unanticipated Bypass - The permittee shall submit notice to the Department of an unanticipated bypass by calling the Department at the number indicated in the certificate of coverage (if the notice is provided after regular working hours, use the following number: 1-800-292-4706) as soon as possible, but no later than 24 hours from the time the permittee becomes aware of the circumstances.
- d. Written Report of Bypass - A written submission shall be provided within five (5) working days of commencing any bypass to the Department, and at additional times as directed by the Department. The written submission shall contain a description of the bypass and its cause; the period of bypass, including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass; and other information as required by the Department.
- e. Bypass Not Exceeding Limitations - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of 9.a., 9.b., 9.c., and 9.d., above. This provision does not relieve the permittee of any notification responsibilities under Part II.C.10. of this permit.
- f. Definitions
 - 1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
 - 2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

PART II

Section C. Reporting Requirements

10. Notification of Changes in Discharge

The permittee shall notify the Department, in writing, within 10 days of knowing, or having reason to believe, that any activity or change has occurred or will occur which would result in the discharge of: 1) detectable levels of chemicals on the current Michigan Critical Materials Register, priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, or the Pollutants of Initial Focus in the Great Lakes Water Quality Initiative specified in 40 CFR 132.6, Table 6, which were not acknowledged in the application or listed in the application at less than detectable levels; 2) detectable levels of any other chemical not listed in the application or listed at less than detection, for which the application specifically requested information; or 3) any chemical at levels greater than five times the average level reported in the complete application (see the certificate of coverage for the date(s) the complete application was submitted). Any other monitoring results obtained as a requirement of this permit shall be reported in accordance with the compliance schedules.

11. Changes in Facility Operations

Any anticipated action or activity, including but not limited to facility expansion, production increases, or process modification, which will result in new or increased loadings of pollutants to the receiving waters must be reported to the Department by a) submission of an increased use request (application) and all information required under Rule 323.1098 (Antidegradation) of the Water Quality Standards or b) by notice if the following conditions are met: 1) the action or activity will not result in a change in the types of wastewater discharged or result in a greater quantity of wastewater than currently authorized by this permit; 2) the action or activity will not result in violations of the effluent limitations specified in this permit; 3) the action or activity is not prohibited by the requirements of Part II.C.12.; and 4) the action or activity will not require notification pursuant to Part II.C.10. Following such notice, the permit may be modified according to applicable laws and rules to specify and limit any pollutant not previously limited.

12. Bioaccumulative Chemicals of Concern (BCC)

Consistent with the requirements of Rules 323.1098 and 323.1215 of the Michigan Administrative Code, the permittee is prohibited from undertaking any action that would result in a lowering of water quality from an increased loading of a BCC unless an increased use request and antidegradation demonstration have been submitted and approved by the Department.

13. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall submit to the Department 30 days prior to the actual transfer of ownership or control a written agreement between the current permittee and the new permittee containing: 1) the legal name and address of the new owner; 2) a specific date for the effective transfer of permit responsibility, coverage and liability; and 3) a certification of the continuity of or any changes in operations, wastewater discharge, or wastewater treatment.

If the new permittee is proposing changes in operations, wastewater discharge, or wastewater treatment, the Department may propose modification of this permit in accordance with applicable laws and rules.

PART II

Section D. Management Responsibilities

1. Duty to Comply

All discharges authorized herein shall be consistent with the terms and conditions of this permit and the facility's certificate of coverage (COC). The discharge of any pollutant identified in this permit and/or the facility's COC more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit and the facility's COC. Any noncompliance with the Effluent Limitations, Special Conditions, or terms of this permit or the facility's COC constitutes a violation of the Michigan Act and/or the Federal Act and constitutes grounds for enforcement action; for COC termination, revocation and reissuance, or modification; or denial of an application for permit or COC renewal.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Department, as required by Sections 3110 and 4104 of the Michigan Act.

3. Facilities Operation

The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures.

4. Power Failures

In order to maintain compliance with the effluent limitations of this permit and prevent unauthorized discharges, the permittee shall either:

- a. provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit; or
- b. upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce or otherwise control production and/or all discharge in order to maintain compliance with the effluent limitations and conditions of this permit.

5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the surface waters or groundwaters of the state resulting from noncompliance with any requirement of this permit including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

6. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of polluting materials in accordance with the requirements of the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code).

PART II

Section D. Management Responsibilities

7. Waste Treatment Residues

Residuals (i.e. solids, sludges, biosolids, filter backwash, scrubber water, ash, grit, or other pollutants or wastes) removed from or resulting from treatment or control of wastewaters, including those that are generated during treatment or left over after treatment or control has ceased, shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. These laws may include, but are not limited to, the Michigan Act, Part 31 for protection of water resources, Part 55 for air pollution control, Part 111 for hazardous waste management, Part 115 for solid waste management, Part 121 for liquid industrial wastes, Part 301 for protection of inland lakes and streams, and Part 303 for wetlands protection. Such disposal shall not result in any unlawful pollution of the air, surface waters or groundwaters of the state.

8. Right of Entry

The permittee shall allow the Department, any agent appointed by the Department or the Regional Administrator, upon the presentation of credentials and following appropriate biosecurity protocols:

- a. to enter upon the permittee's premises where an effluent source is located, production areas, land application areas or any place in which any records are required to be kept under the terms and conditions of this permit; **and,**
- b. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect process facilities, treatment works, monitoring methods and equipment regulated or required under this permit; and to sample any discharge of pollutants.

9. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Act and Rule 2128 (Rule 323.2128 of the Michigan Administrative Code), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the Regional Administrator. As required by the Federal Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Act and Sections 3112, 3115, 4106 and 4110 of the Michigan Act.

PART II

Section E. Activities Not Authorized by This Permit

1. Discharge to the Groundwaters

This permit does not authorize any discharge to the groundwaters. Such discharge may be authorized by a groundwater discharge permit issued pursuant to the Michigan Act.

2. Facility Construction

This permit does not authorize or approve the construction or modification of any physical structures or facilities. Such approvals, if required, shall be obtained in accordance with applicable law.

3. Civil and Criminal Liability

Except as provided in permit conditions on "Bypass" (Part II.C.9. pursuant to 40 CFR 122.41(m)), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond the permittee's control, such as accidents, equipment breakdowns, or labor disputes.

4. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee may be subject under Section 311 of the Federal Act except as are exempted by federal regulations.

5. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Federal Act.

6. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other Department of Environmental Quality permits, or approvals from other units of government as may be required by law.

PART III**Technical Standard for the Surface Application of Concentrated Animal Feeding Operations Waste on Frozen or Snow-Covered Ground Without Incorporation or Injection**

When Concentrated Animal Feeding Operation (CAFO) waste is surface-applied to frozen or snow-covered ground, without incorporation or injection, and that application is followed by rainfall or temperatures rising above freezing, the CAFO waste can run off into lakes, streams, or drains. Documented evidence shows that this runoff can cause resource damage to the surface waters of the state. Therefore, in accordance with Title 40 of the Code of Federal Regulations, Section 123.36, Establishment of Technical Standards for Concentrated Animal Feeding Operations, and State Rule 323.2196(5), CAFO Permits, the Michigan Department of Environmental Quality, Water Bureau, establishes the following Technical Standard. This Technical Standard shall be used for field-by-field assessments, as required by National Pollutant Discharge Elimination System permits issued to CAFOs, to assure that the land application of CAFO waste to frozen or snow-covered ground, without incorporation or injection, will not result in CAFO waste entering the waters of the state.

Based on the frozen and/or snow-covered conditions, the minimal settling and breaking down of the waste during these conditions, and the inability to predict or control snowmelt and rainfall, there are no practices that can ensure the runoff from fields with surface-applied waste on frozen or snow-covered ground will not be polluted. This standard assumes that surface runoff from snowmelt and/or rainfall will occur, and that the runoff will be polluted if CAFO waste is surface-applied on frozen or snow-covered ground. Therefore, the way to prevent these discharges is to apply CAFO waste only to fields, or portions of fields, where the runoff will not reach surface waters.

A field-by-field assessment must be completed, and all of the following requirements must be met and documented:

1. The Natural Resources Conservation Service's Manure Application Risk Index (MARI)* has been completed to identify fields, or portions of fields, that scored 37 or lower on the MARI.
2. An on-site field inspection of the entire field, or portion of field, that scored 37 or lower under the MARI has been completed. The inspection will take into consideration the slope and location of surface waters, tile line risers, and other conduits to surface water.
3. Based on the on-site field inspection, the Comprehensive Nutrient Management Plan (CNMP) will include documentation on topographic maps, the fields or portions of fields where the runoff will not flow to surface waters, and designate those areas as the only areas authorized for surface application without incorporation to frozen or snow-covered ground.
4. The findings of the inspection and documentation in the CNMP will be approved by a certified CNMP provider.

This assessment must be incorporated into the CNMP, and submitted as part of the CNMP Executive Summary each year.

* Grigar, J., and Lemunyon, J. A Procedure for Determining the Land Available for Winter Spreading of Manure in Michigan. NRCS publication. (Available on the MDEQ NPDES website)

ORIGINAL SIGNED
Richard A. Powers, Chief
Water Bureau

April 19, 2005
Date