MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

CAFO RECORD KEEPING FORMS CHECKLIST

INSTRUCTIONS

1. Use the checklist to determine which of the record-keeping forms are required for your operation and include them in your record-keeping file. Forms for all record-keeping requirements of the MOG01 (NPDES) and MOGS1 (State No Discharge) operating permits are included.
2. There will be multiple copies of some pages due to the unique characteristics of each operation. The forms can be filled out on a computer or they can be printed or copied and kept in a binder.
3. Information on the forms can be used to complete the annual report, which must be submitted by Feb. 15 of each year. Only specified forms need to be submitted with the annual report
4. All records must be retained for five years along with your operating permit and nutrient management plan.

CHECKLIST

OPERATION NAME:	**PERMIT NUMBER**: MO-	**YEAR**
MANURE STORAGE		
1A. Spills and Overflows		☐
1B. Liquid Manure Storage Level Readings		☐
1C. Transfers Off-Farm		☐
1D. Rainfall Records (Required only for operations with open liquid storage)		☐
1E. Mortality Management		☐
TESTING RESULTS		
2A. Manure		☐
2B. Soils		☐
INSPECTIONS		
3A. Production Area Visual Inspections		☐
3B. Land Application Area Visual Inspections		☐
3C. Problems and Repairs		☐
LAND APPLICATION		
4A. Operational Monitoring		☐
4B. Nitrogen		☐
4C. Phosphorus		☐

1A - MANURE STORAGE. Spills and Overflows (List any corrective actions taken in 3B.)

PERMIT NUMBER **MO-**				YEAR		
Date	**Time**	**Cause of Discharge**	**Location**	**Discharge Rate** gallons or cu. ft./Sec	**Discharge Duration**	**Estimated Volume Discharged[1]** gallons or cu. ft.

Notes

[1] Estimated volume = discharge rate in gallons per second or cubic feet per second x duration (seconds). See record-keeping requirements of your MOG01 or permit, for additional guidance.

Measure discharge or release of spills from manure handling and overflows from manure storages at the property line or immediately prior to entering the receiving stream.

Any discharge of manure, litter, process wastewater, or mortality byproducts to surface waters of the state or release that crosses property boundaries shall be reported to the department as soon as practicable, but no later than 24 hours after the permittee becomes aware of the discharge. MOGS1 permitees see additional reporting requirements in non-compliance reporting requirements of your permit.

If a discharge or release occurs, submit this page with the annual report.

1B - MANURE STORAGE. Liquid Manure Storage Level Readings

MANURE SOURCE	PERMIT NUMBER	YEAR
	MO	

Week	Date	Level Reading - Feet Below Overflow
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Instructions: Record the liquid level weekly for each unique liquid manure storage structure. Use a separate sheet for each separate structure.

1C - MANURE STORAGE. Transfers (Off-farm)

PERMIT NUMBER	YEAR
MO	

Source[1]	Date of Transfer	Amount Transferred (gal. or ton)	Info to Buyer (check)		Name of Buyer	Address
			Current Manure Test Results	NMTS[3]		
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Notes

[1] Deep pit, lagoon, basin, tank, sludge, separated solids, litter, mortality compost.

[2] Agitated, unagitated, cake litter, with or without bedding, composted litter.

[3] The current version of the Missouri CAFO Nutrient Management Technical Standard published by the Department of Natural Resources.

1D - MANURE STORAGE. Rainfall (Required for open liquid storage only)

PERMIT NUMBER

MO

YEAR

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
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Monthly Total												
YTD												

Instructions: Collect rainfall data for operations with open liquid manure storages only.

1E - MANURE STORAGE. Method of Mortality Management

PERMIT NUMBER	YEAR
MO	

Composting	Rendering	Sent to Landfill	Incineration	Burial[1]	Other
☐	☐	☐	☐	☐	☐ ____

Records[2]:

Notes

[1] In accordance with 10 CSR 20-8.300(10), Class I operations shall not use burial as a method of disposing of routine mortalities. Burial is allowed for disposal for mass mortalities, with approval.

[2] Information recorded here can include weekly/monthly mortality numbers, mortality and composting procedures, mortality byproduct management, or rendering facilities information.

2A - TESTING RESULTS. Manure Test Results (Annual manure analysis is required for all CAFO's, including export only operations.)

PERMIT NUMBER

MO

YEAR

Source of Manure[1]	Type of Manure[2]	Sample Date	Moisture/Dry Matter (%) (Circle one)	Units lbs./1000 gal lbs/ton	TKN	NH_3-N	P_2O_5	K_2O	NO_3-N [3]

Notes

[1] Deep pit, lagoon, basin, litter, tank, sludge, separated solids, mortality compost.

[2] Agitated liquid pit/tank manure, unagitated lagoon/basin effluent, agitated lagoon/basin manure, poultry litter, poultry litter cake, bedded pack manure, stacked manure with or without bedding, composted litter, mortality compost or other composted manure.

[3] Report nitrate nitrogen only when applicable.

MOG01 permittees must submit a copy of the lab analysis sheets or this form with the annual report.

2B - TESTING RESULTS. Soil Test

PERMIT NUMBER	YEAR
MO	

Field ID[1]	Soil Sampling Date	Units ppm or lbs/ac (circle one)	Soil Test P[2]	Soil Test P Rating	CEC (meq/100g)	Organic Matter (%)

Notes

1 Name of field as identified in nutrient management plan; only include fields under control (owned, rented, or leased) of the CAFO owner or operator.

2 Samples should be analyzed using the Bray-1 P soil extraction procedure. If another procedure is used by the soil testing lab, this must be noted on this sheet.

MOG01 permittees must submit a copy of the lab analysis sheet(s) or this form with the Annual Report if soil samples were taken during the year.

3A - INSPECTIONS. Production Area Visual Inspections (List any deficiencies and corrective actions taken in 3C.)

PERMIT NUMBER	YEAR
MO	

Week	Stormwater [1] Date and Initial	Water Lines [2] Date and Initial	Manure Containment Structure [3] Date and Initial
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Notes

[1] Record the weekly inspections of all stormwater diversion devices directing clean water away from the production area and channeling contaminated water to manure storages.

[2] Record each week the daily inspections of all wastewater lines within the production area and all drinking or cooling water lines that have the potential to leak into manure, litter or process wastewater structures. Record weekly that you inspected daily.

[3] Record weekly inspections of all manure, litter and process wastewater storage structures.

3B - LAND APPLICATION. Land Application Area Visual Inspections (List any deficiencies and corrective actions taken in 3C.)

PERMIT NUMBER **MO**	YEAR

Land Application Equipment[1] Date and Initial	**Perimeter of Field**[2] Date and Initial	**Drifting of Spray**[3] Date and Initial	**Aboveground Irrigation Pipelines**[4] Date and Initial

Notes

[1] Periodically inspect land application equipment for leaks.
[2] Monitor the perimeter of application field to ensure wastewater does not run off.
[3] Monitor for drifting of spray irrigation.
[4] Hourly inspections of aboveground pipelines for leaks when in use.

3C - INSPECTIONS. Problems and Repairs

PERMIT NUMBER **MO**		YEAR	
Inspection Date	**Deficiencies Noted**	**Date of Repair[1]**	**Corrective Actions Taken**

Notes

[1] Deficiencies not corrected within 30 days shall have an explanation as to why corrective actions were delayed.

4A - LAND APPLICATION. Operational Monitoring

PERMIT NUMBER	YEAR	DATE LAND APPLICATION EQUIPMENT WAS CALIBRATED
MO		

Source of Manure[1]	**Type of Manure**[2]	**Field ID**[3]	**Date of Application**	**Weather**[4]	**Rainfall**[5]	**Soil Condition**[6]	**Application Method**[7]	**Rate** gal/ac or tons/ac	**Basis**[8] N or P	**PAN**[9] (lbs/ac)	**P_2O_5** (lbs/ac)	**Spreadable Acres**	**Total applied** (gal or tons) Circle one

Notes

[1] Deep pit, lagoon/basin, litter, tank, separated solids, compost.

[2] Agitated liquid pit/tank manure, unagitated lagoon/basin effluent, agitated lagoon, basin manure, lagoon/basin sludge, separated solids, poultry litter, poultry litter cake bedded pack manure, stacked manure with or without bedding, composted litter, mortality compost, other composted manure.

[3] Name of field receiving manure as identified in nutrient management plan; only include fields under control (owned, rented or leased) of the CAFO owner or operator.

[4] Record the weather conditions at the time of application; insert the codes that apply: CL – clear sky, RN – rain, SN – snowing, OV - overcast, FR – temperature below 32 degrees F.

[5] Record “Before” or “After” if a rainfall event occurred 24 hours prior to or after application.

[6] Soil condition at time of application: Dry, saturated, muddy, snow-covered or frozen.

[7] Injection, partial injection, surface application and incorporated (indicate number of days to incorporation), or surface application only.

[8] Write N or P to indicate if the application rate of the field is nitrogen based or phosphorus based.

[9] Plant Available Nitrogen.

4B - LAND APPLICATION MONITORING. Nitrogen Summary

PERMIT NUMBER

MO

YEAR

Field ID[1]	Spreadable Acres	Planned Crop	Projected Yield (bu. or ton/ac)	Planned N Recommendation[2] (lbs/ac)	Actual Applied N (lbs N/ac)			Actual Crop	Actual Yield (bu. or ton/ac)	Actual N Removal[4] (lbs/ac)	N Surplus (+) or Deficit (-)[4] (lbs N/ac)
					Manure PAN	Other N Sources[3]	Total PAN				

Notes

[1] Name of field receiving manure as identified in nutrient management plan; only include fields under control of the CAFO owner or operator.

[2] University of Missouri fertilizer recommendations should be used.

[3] Includes credits from previous legume crops and residual N from previous application.

[4] Crop N usage rate X actual crop yield, for legumes crop N content X crop yield.

[5] Total applied PAN minus actual N removal.

4C - LAND APPLICATION MONITORING. Phosphorus Summary

PERMIT NUMBER	YEAR
MO	

Field ID[1]	MO Soil Test P Rating	P Index Rating	Planned P Removal Rate[2] (lbs P_2O_5 /ac)	Actual Applied P (lbs P_2O_5 /ac)[3]			Actual P Removal[4] (lbs P_2O_5 /ac)	*Multi-year P Applications	
				P_2O_5 From Manure	Other P_2O_5 Sources	Total P_2O_5		Previous Balance[5]	Current Balance[6]

Notes

[1] Name of field as identified in nutrient management plan that is restricted to a P based application, which received manure or is utilizing a "multi-year phosphorus application;" only include fields under control of the CAFO owner or operator.

[2] Crop P usage rate X crop yield goal (University of Missouri fertilizer recommendations should be used).

[3] Enter amount applied for a yearly application or amount applied for a multi-year phosphorous application.

[4] Crop P usage rate X actual crop yield.

[5] Enter value from the current balance column from last year's form.

[6] For initial year of a multi-year phosphorous application this is the "Total P_2O_5" - Planned P Removal Rate. For subsequent years it is the previous balance - Planned P Removal Rate. If the difference is a negative number enter "0".

***Multi-year P applications shall be conducted in accordance with 10 CSR 20-6.300(1)(B)14 and the NMTS.**