M E M O R A N D U M

Department of Environmental Quality
Division of Water Program Coordination

SUBJECT: Guidance Memo No. 02-2001
Confined Animal Feeding Operation (CAFO) Inspection Checklist

TO: Regional Directors

FROM: Larry G. Lawson, P.E.

DATE: January 23, 2002

COPIES: Regional Permit Managers, Regional Compliance and Enforcement Managers, Regional Water Permit Managers, Mary Jo Leugers, Martin Ferguson, OWPP staff

Background With the adoption of the Virginia Pollution Abatement General Permit Regulation for Poultry Waste Management by the State Water Control Board, it became necessary to revise the CAFO Inspection Checklist. Through meetings with regional staff, a draft document was developed. This draft was pilot tested, comments were received from the regions, changes were made, and the result is the attached document. A table of revisions is also attached.

Inspectors will use the checklist while inspecting all confined animal feeding operations. The form may be printed and completed by hand or completed on a laptop in the field. The complete form is eleven pages long and consists of the following pages: general information, inspection summary, feeding and waste storage facilities, monitoring requirements, nutrient management plan, application field data, groundwater monitoring, construction inspection, and poultry waste tracking and accounting. Please remember that not all pages may be necessary for every inspection. For example, it is not necessary to use an application field data sheet for a poultry operation that transfers all waste off the farm.

The form has no borders, except table borders. Inspectors may add borders to suit their printer. The content, not the appearance, is what matters most. The form will soon be available on DEQNet.

Inspections The General Assembly has mandated that every animal feeding operation covered by a VPA general permit shall be inspected by the Department at least once every year. A person certified by the Department of Conservation and Recreation as a Nutrient Management Planner must conduct the inspections. The regions should remember this statutory requirement when they establish their inspection schedules each spring. Inspections of permitted CAFOs will include a visual inspection of facilities and a record keeping review. Inspectors should be familiar with the NMP of the operation before the inspection and the inspection should include an evaluation of NMP compliance.

Forward complete copies of CAFO inspection reports to Scott Haley in the Central Office – OWPP.

Biosecurity at confined animal feeding operations is a serious matter. Transmittal of disease from one farm to another can result in devastating economic impacts on individual growers and the industry in general. Inspectors are expected to adhere to the protocols in Guidance Memorandum No. 01-2017 - DEQ Staff Biosecurity Procedures and Response to Suspected and/or Confirmed Outbreak of Foot and Mouth Disease (FMD).

Please contact Scott Haley, 804-698-4443, if you have any questions about this guidance.

Attachment List
CAFO Checklist Revision List
CAFO Checklist

DISCLAIMER

This document provides procedural guidance to the permit staff. This document is guidance only. It does not establish or affect legal rights or obligations. It does not establish a binding norm and is not finally determinative of the issues addressed. Agency decisions in any particular case will be made by applying the State Water Control Law and the implementation regulations on the basis of the site-specific facts when permits are issued.

Revisions to the CAFO Inspection Checklist

General Information	"Other facility contact" added, required by poultry registration statement, good to have for other operations. "Photos/samples" added, some regions use digital cameras during inspections. “Poultry” added to type of livestock. “DCR Training completed,” added to monitor required training completion and date. Space for comments/general summary added to the bottom.
Inspection Summary Sheet	Referenced in the cover/transmittal letter. Added as a location to summarize items that require action and estimated completion dates for the farm operator/owner. Provides space to list recommendations for the farm operator/owner. If there are no items requiring action or no recommendations, this sheet is not necessary. Prepares inspectors for the next inspection by allowing them to make sure past problems have been corrected and not allowed to be a chronic problem.
Feeding and Waste Storage Facilities	With the adoption of the poultry waste management regulation, we revised this part of the form to differentiate between the major types of animal agriculture we encounter: poultry, swine, dairy, and beef cattle. Often, much information on the old sheet did not always apply to the type of CAFO inspected. With this in mind, we developed individual sheets for use on different types of operation. The other Feeding and Waste Storage Facilities sheets that do not apply to the inspected operation are not necessary. Example: If inspecting a dairy farm - use the sheet that applies to cattle. For farms with more than one animal type, use all sheets that apply.
Monitoring Requirements / Waste	"Freq.____" added to record NMP required frequency of testing. "Waste application based on" moved to Application Field Data Sheet. Analysis date added and "sampled/analyzed by:" separated to reflect that many growers sample their waste, but do not analyze the samples. "Waste nutrient value" - Several spaces were added to record different types of waste generated and their nutrient content. Many farms have multiple types of manure (dairy and poultry) or have multiple storage facilities (lagoons 1,2,3, etc.). Expand this if necessary to include others or delete unnecessary spaces, depending on the characteristics of the operation.
Monitoring Requirements / Soil	“Proper frequency” added. This section may need more explanation in the comment field - as some farms test 1/3 of their fields every year. Analysis date added and "sampled/analyzed by:" separated to reflect that many growers sample their fields, but do not analyze the samples. “Are pHs in agronomic range for intended crops" replaces "(6 - 6.5)" due to the fact that some crops are grown outside of the 6 - 6.5 range.
Monitoring Requirements / Groundwater	“N/A (unknown animal usage or < 10,000gpd)” added to reflect possibility of unknown animal usage. If we have reason to believe the operation uses >10,000gpd (i.e. a large operation), we would distribute the Annual Water Use Reporting (AWUR) Fact Sheet. The fact sheet explains the requirements of 9 VAC 25-200-10 et seq., and gives the permittee contact information.

Nutrient Management Plan	"Planner" and phone number added to reflect possibility that plans now may be written by private individuals and approved by DCR, not necessarily written by employees of DCR. "Is NMP current (update 1/3 yrs.) (1/5 yrs. for some waste transfer only plans)" reflects required update frequency. Always check the plan expiration date. "Plan type" added to reflect poultry regulation impact and possibility of P-based and waste transfer plans. For poultry waste transfer- only plans (plans that have no land application activity) the rest of the page is N/A, and no Application Field Data Sheet is required. "Custom Applicator" added to O&M Manuals Available. "Nutrient Management Job Sheet" changed to "Field Records" due to many producers using their own databases, or ones provided by consultants, custom applicators, etc. "Records" section expanded to allow more detail. "Land application performed on targeted fields," added to ensure that plan is followed, or that adjustments are made according to NMP Standards and Criteria. This covers some of the most common problems with following NMPs: 1) variations in the weather that require cropping changes, 2) emergency land applications of manure that protect freeboard in storage systems, or 3) economic factors that affect cropping patterns.
Application Field Data Sheet	Use one sheet for each field inspected (usually 2 sheets). NRCS Tract & field number added for cross-reference (not required if not included in the NMP). Field gross acres and usable acres (these should be noted in the NMP) added to make sure buffers are taken into account when land application activities are occurring. N/A added to "Crop condition" due to harvesting activities. "Crops harvested and utilized" moved here from NMP sheet and expanded for the possibility of the use of cover crops. "Waste application based on" moved from monitoring requirements. Table inserted which allows for recording multiple application events on a single field. This table can be expanded or reduced depending on what is expected (swine operations may have multiple events, whereas, poultry may have only one day). Adding the heading "Field conditions" stresses the emphasis we should be placing on land application activities and the use of a separate sheet for each field allows us to differentiate between fields.
Groundwater Monitoring Sheet	No changes. Only necessary for operations required to monitor groundwater.
Construction Inspection Sheet	No changes.
Poultry Waste Tracking and Accounting Sheet	The information contained on this sheet is the same information found on the "Poultry Waste Transfer Records" sheet that each grower received with his permit. We would prefer to have the grower make us a copy of his waste transfer records instead of using this sheet, however some growers may not want to release the names of their clients. We should not remove a grower's copy of the form from the operation to copy and mail back to him.

CONFINED ANIMAL FEEDING OPERATIONS
Inspection Checklist (Revised 01-02)

General Information

Permit Number: _____ County/City: _____

Date of Permit Coverage: _____

Facility Name: _____

Owner/Operator: _____ Phone: _____

Address: _____ _____

_____ _____

Other facility contact: _____ Phone: _____

Inspection Scheduled: [ ] Yes [ ] No

Inspection Announced: [ ] Yes [ ] No

Inspection Date/Time: _____ Photos / samples taken [ ] Yes [ ] No

Inspector: _____ Certification Number _____

Reviewed By/Date: _____

Others Present: _____

Type Livestock: Swine: [ ] Farrow [ ] Feeder [ ] Finish [ ] Sow/Farrow to Finish
[ ] Poultry [ ] Dairy [ ] Beef [ ] Other _____

Number Confined: At Inspection _____ Reg. Statement_____ NMP _____

Number of Housing Units: _____

Construction Inspection Sheet: [ ] Previously Completed [ ] Attached [ ] N/A

DCR Training completed: [ ] Yes [ ] No Date: _____

Comments / General Summary

Inspection Summary Sheet

VPG or VPA Permit #_____

(This sheet should be sent with the inspection report and cover letter to summarize for the farm operator items that require corrective action and preventive measures (recommendations) to minimize potential problems.)

Items requiring action:	Corrective action needed:	Expected Completion Date:
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Recommendations
1.
2.
3.
4.

Comments:

Feeding and Waste Storage Facilities -- Swine

Perimeter of housing units clear of vegetation: [ ] Yes [ ] No
Evidence of leaks or overflow from housing units: [ ] Yes [ ] No
Which housing units? _____

Type of waste collection system: [ ] Pull Plug [ ] Recirculation [ ] Sump
[ ] Flush gutter [ ] Floor Over Pit [ ] Other _____

Method of carcass disposal: [ ] Burial [ ] Incineration [ ] Rendering
[ ] Composting [ ] Other _____

Type of waste storage facilities: [ ] Lagoon [ ] Pit [ ]Slurry Store
[ ] Other _____

Observed Freeboard (in):

Storage #1	_____	Evidence of Overflow: [ ]Yes [ ] No
Storage #2	_____	Evidence of Overflow: [ ]Yes [ ] No
Storage #3	_____	Evidence of Overflow: [ ]Yes [ ] No

Adequate vegetative cover on earthen berms:	[ ]Yes	[ ] No	[ ] N/A
Visible marker for max/min operating levels:	[ ]Yes	[ ] No	[ ] N/A
Trees/brush on berm:	[ ]Yes	[ ] No	[ ] N/A
Evidence of erosion on berm:	[ ]Yes	[ ] No	[ ] N/A
Evidence of burrowing animals:	[ ]Yes	[ ] No	[ ] N/A

General Condition of Feeding and Waste Storage Facilities:

Feeding and Waste Storage Facilities -- Poultry

Type of housing / operation: [ ] High-rise layer [ ] Floor litter (broiler/turkey)
[ ] Layer/gutter [ ] Other _____

Type of waste collection: [ ] Cake removal [ ] Total litter removal
[ ] Gutter/scraper [ ] Belt system [ ] Other _____

Method of carcass disposal: [ ] Composting [ ] Incineration [ ] Rendering
[ ] Daily Burial (Not Allowed By General Permit) [ ] Other _____

Type of waste storage facilities: [ ] Shed [ ] Pad [ ] Composting Shed
[ ]Bunker [ ] Stacked Pile [ ] Other _____
[ ]All waste transferred off the farm within 14 days of cleanout (below does not apply)

If built after Dec. 1, 2000, out of 100-yr floodplain? [ ]Yes [ ] No [ ] N/A
If no, built up and protected from floodwaters? [ ]Yes [ ] No [ ] N/A

Waste Storage Time > 14 days

Covered to protect from precipitation and wind	[ ]Yes [ ] No
Evidence of water running onto or under waste	[ ]Yes [ ] No
Impermeable barrier or 2 ft. separation to seasonal high water table	[ ]Yes [ ] No
If no, 1 ft. between impermeable barrier and seasonal high water table	[ ]Yes [ ] No

General Condition of Feeding and Waste Storage Facilities:

Feeding and Waste Storage Facilities -- Cattle (Dairy and/or Beef)

Silage storage present: [ ] Yes [ ] No
Discharge from silage storage: [ ] Yes [ ] No
Discharge entering state waters: [ ] Yes [ ] No

Perimeter of housing units clear of vegetation: [ ] Yes [ ] No [ ] N/A
Evidence of leaks or overflow from housing units: [ ] Yes [ ] No [ ] N/A
Which housing units? _____
Discharge or overflow entering state waters: [ ] Yes [ ] No [ ] N/A

Loafing Areas Present: [ ] Yes [ ] No
Denuded with potential impact to State Waters: [ ] Yes [ ] No [ ] N/A

Type of Waste Collection System: [ ] Pull Plug [ ] Flush [ ] Sump
[ ] Scrape [ ] Floor Over Pit [ ] Other _____

Method of carcass disposal: [ ] Burial [ ] Incineration [ ] Rendering
[ ] Composting [ ] Other _____

Type of waste storage facilities (check all that apply):[ ] Earthen Storage [ ] Dry Stack
[ ]Slurry Store [ ] Tank (parlor water) [ ] Concrete Pit [ ]Other_____

Visible marker for max/min operating levels: [ ]Yes [ ] No [ ] N/A

Observed Freeboard (in):
Storage #1 _____ Evidence of Overflow: [ ]Yes [ ] No
Storage #2 _____ Evidence of Overflow: [ ]Yes [ ] No

Adequate vegetative cover on earthen berms: [ ]Yes [ ] No [ ] N/A
Visible marker for max/min operating levels: [ ]Yes [ ] No [ ] N/A
Trees/brush on berm: [ ]Yes [ ] No [ ] N/A
Evidence of erosion on berm: [ ]Yes [ ] No [ ] N/A
Evidence of burrowing animals: [ ]Yes [ ] No [ ] N/A

Condition of Feeding and Waste Storage Facilities:

Monitoring Requirements

WASTE

Monitored in accordance with required frequency: [ ] Yes [ ] No Freq. _____
Sample(s) Collected By: _____
Analyzed by: _____ Date(s): _____

Proper Composite Sample Collected: [ ] Yes [ ] No
Waste analyses attached: [ ] Yes [ ] No
Waste Nutrient Value (N - P_2O_5 - K_2O):

Type: _____
Surface Application: _____ (lbs./1000gals ; lbs./ton)
Incorporation: _____ (lbs./1000gals ; lbs./ton)
Type: _____
Surface Application: _____ (lbs./1000gals ; lbs./ton)
Incorporation: _____ (lbs./1000gals ; lbs./ton)
Type: _____
Surface Application: _____ (lbs./1000gals ; lbs./ton)
Incorporation: _____ (lbs./1000gals ; lbs./ton)

SOILS

Monitored in accordance with required frequency: [ ] Yes [ ] No Freq. ____
Sample(s) Collected By: _____
Analyzed By: _____ Date: _____

Proper Compositing Protocol Used: [ ] Yes [ ] No
Samples Collected from each Field: [ ] Yes [ ] No
Are pHs in Agronomic Range for Intended Crops: [ ] Yes [ ] No

GROUNDWATER [ ] Required - Complete Groundwater Monitoring Sheet [ ] N/A

Water Withdrawal Reporting: [ ] Yes [ ] No
[ ]N/A (unknown animal usage or < 10,000gpd)

Comments:

Nutrient Management Plan (NMP)

NMP Approval Date: _____
Planner:_____ Phone:_____

Copy of Approved NMP Available: [ ] Yes [ ] No
Is NMP Current (update 1/3 years): [ ] Yes [ ] No
(1/5 yrs. for some waste transfer only plans)
NMP Animal Units Exceeded: [ ] Yes [ ] No

Plan type : [ ] N-based [ ] P-based [ ] Waste Transfer only (following sections N/A)

Application Equipment O&M Manuals Available: [ ] Yes [ ] No [ ] N/A (Custom Applicator)

Waste Application Method: [ ] Traveling Gun [ ] Solid Set [ ] Center Pivot
[ ] Liquid Spreader [ ] Dry Manure Spreader [ ] Other _____

Date of Last Calibration: _____
Method of Calibration: _____

Field Application Records Maintained: [ ] Yes [ ] No

Following information provided in records:

Crop:	[ ] Yes [ ] No	Date(s) Applied:	[ ] Yes [ ] No
Incorporation & type:	[ ] Yes [ ] No	Rate(s) Applied:	[ ] Yes [ ] No
Supp. Fert. Applied:	[ ] Yes [ ] No [ ] N/A		
Lime Applied:	[ ] Yes [ ] No [ ] N/A		

Applications comply with seasonal spreading schedule: [ ] Yes [ ] No

Land application performed on targeted fields: [ ] Yes [ ] No
If no, adjustments made according to NMP Standards & Criteria [ ] Yes [ ] No

NMP Application Notes Followed: [ ] Yes [ ] No [ ] N/A
(Maximum application rates, cutting schedule, etc.)

Yields In Approximate Range Provided by NMP: [ ] Yes [ ] No

Compliance with Other NMP Conditions: [ ] Yes [ ] No [ ] N/A

Comments:

Application Field Data Sheet

(Use one sheet for each field inspected)

NRCS Tract #: _____ Field #: _____
Field Name: _____ Gross Acres: _____ Usable Acres: _____

Crop - Current: _____ Previous: _____ Next: _____
Crop Condition: [ ] Poor [ ] Average [ ] Good [ ] N/A (Harvested)
Crops Harvested and Utilized [ ] Yes [ ] No [ ] N/A (Cover crop)

Application Rate based on: [ ] Long term average [ ] Most recent analysis

Date	Rate / ac	Amount applied	Incorporation: Yes (time) / No

Total Amount Applied to field _____ (1000's gals. ; tons)
Waste Nutrient Value: _____ (lbs./1000gals ; lbs./ton)
Nutrients from Waste (lbs./ac): _____
Supplemental Nutrients (lbs./ac): _____
Total Nutrients to Field (lbs./ac): _____
NMP Allowable Loading (lbs./ac): _____

Field Conditions
Evidence of Buffers Breached by Waste: [ ] Yes [ ] No
Evidence of Runoff/Erosion: [ ] Yes [ ] No

Comments:

GROUNDWATER MONITORING SHEET

Date Last Sampled: _____

Sample Collected By: _____

Analyzed By: _____

Proper Sample Preservation Used: [ ] Yes [ ] No

Proper Sample Protocol Used: [ ] Yes [ ] No

(static water level measured prior to bailing)

(three well volumes withdrawn prior to sampling)

One Upgradient, One Downgradient Wells Present: [ ] Yes [ ] No

pH Analysis Performed On-site: [ ] Yes [ ] No

Monitoring results attached: [ ] Yes [ ] No (see below)

Well Number	1	2	3 (if present)
(up/downgradient)	_____	_____	_____
Static Water Level (ft)	_____	_____	_____
Ammonia Nitrogen (mg/l)	_____	_____	_____
Nitrate Nitrogen (mg/l)	_____	_____	_____
pH (SU)	_____	_____	_____
Conductivity (umhos/cm)	_____	_____	_____

Comments:

CAFO Construction Inspection Sheet

VPG Permit No. _____

The following information is required to verify compliance with the requirements of the CAFO General Permit Regulation 9 VAC 25-192-00 and § 62.1-44.17:1 of the Code of Virginia. This information pertains to the siting, design, construction and operation of earthen waste storage facilities.

Certification

Lagoon Liner Type: [ ]Clay [ ] Synthetic
Liner Permeability greater than 0.0014 in/hr: [ ] Yes [ ] No
Lagoon Siting outside 100yr flood plain: [ ] Yes [ ] No
Inundation Protected: [ ] Yes [ ] No [ ] N/A

As built Volumes:
[ ] Treatment
[ ] Storage
[ ] Storm event (25yr-24hr)

Certification By:
[ ] Professional Engineer _____
[ ] NRCS Employee _____
[ ] No Documentation
[ ] Improper Documentation

Design/Operation

Notification provided 14 days prior to receiving animals: [ ] Yes [ ] No
Waste placed in lagoon at time of inspection: [ ] Yes [ ] No
Lagoon properly charged (1/2 treatment vol. or 6 ft.): [ ] Yes [ ] No
Appropriate storm water diversions around berm: [ ]Yes [ ] No
Visible waste level marker installed: [ ] Yes [ ] No [ ] N/A
Groundwater wells installed and baseline sampling: [ ] Yes [ ] No [ ] N/A
Waste pipe diffuser installed: [ ] Yes [ ] No [ ] N/A

Depth to Seasonal Water Table > 1.0 ft. below lagoon bottom: [ ] Yes [ ] No [ ] Unknown
Method Used to Determine Seasonal Water Table Elevation:[ ] Soil Boring/Test pit
[ ] Soil Survey
[ ] Other _____

Comments:

Poultry Waste Tracking and Accounting Sheet

VPG Permit No. _____

This sheet, or a copy of the grower's poultry waste transfer record sheet, may be used to track poultry waste transfers. DEQ has an obligation to compile and make available to the public "the amount of poultry waste transferred in Virginia, the nutrient content of the waste, and the geographic distribution of the transferred waste", as published in the *Virginia Register, Volume 17, Issue 3*.

Date	Tons	Litter Analysis (N-P-K)	Locality Where Waste Will Be Used (town or city and zip code)	Nearest Waterbody To Litter Application Area