

**VIRGINIA POLLUTION ABATEMENT (VPA)**

**PERMIT APPLICATION**

**FORM B - ANIMAL FEEDING OPERATIONS (AFOs)**

**Department of Environmental Quality**

## **VIRGINIA POLLUTION ABATEMENT (VPA) PERMIT APPLICATION FORM B - ANIMAL FEEDING OPERATIONS**

This form is to be completed by applicants requesting an individual VPA permit for an Animal Feeding Operation (AFO).

*Animal feeding operation* means a lot or facility where the following conditions are met:

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

Two or more animal feeding operations under common ownership are a single animal feeding operation for the purposes of determining the number of animals at an operation, if they adjoin each other, or if they use a common area or system for the disposal of wastes.

All applicants must submit Form A and B. You must respond to every item listed on the application form. Those items which do not apply to your farm or business should be marked N/A for not applicable. In some instances a brief explanation for an N/A response may be necessary.

Depending on the operation and the information submitted, the Department of Environmental Quality reserves the right to request further information than what is requested on this form. A preliminary meeting with, or phone call to the local Department of Environmental Quality Regional Office is recommended prior to completing any portion of Form B. The Regional Office contact information can be found in the VPA Permit General Instructions document.

The Department of Environmental Quality may in some cases require the installation of groundwater monitoring wells in order to obtain a VPA permit. Typically, the Department of Environmental Quality reviews each application to determine whether groundwater monitoring wells will be required for a permit at the particular location described in the application.

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### **APPLICATION FORM B - INSTRUCTIONS**

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#### **I. OWNER/OPERATOR CONTACT INFORMATION**

Provide the name, mailing address and telephone numbers of the person to whom this permit will be issued. Provide the best day of the week and time for DEQ to make contact with the owner during regular working hours. Provide the name, mailing address and telephone numbers of the person who will operate the facility. Provide the best day of the week and time for DEQ to make contact with the operator during regular working hours.

#### **II. FARM/FACILITY INFORMATION**

Provide the name of the farm or facility. Provide the physical location for the animal feeding operation other than the owner's mailing address (e.g. Rt. 653, 1 mile west of Rt. 702).

#### **III. ANIMAL TYPE AND NUMBERS**

In the table, indicate the average weight and maximum number of each type of animal which will be maintained at the facility or the farm at any one time.

#### **IV. WASTE STORAGE**

All waste treatment, holding and storage facilities must be approved by the Department of Environmental Quality. If the existing facilities have not been approved, it will be necessary to submit the information listed in Section IV - Table G. If previously approved facilities have been expanded, it will be necessary to submit the information listed in Section IV - Table G in order to obtain approval of the expanded unit(s) as required by the application and instructions.

In Section IV - Table A, indicate the type, total number and design volume of existing and proposed waste storage facilities. Provide responses regarding the existing storage/treatment facilities identified in Table A.

- A. Indicate if the existing storage/treatment facilities identified in Table A have been previously approved by the DEQ.
  - a. Provide the date of the DEQ approval for the existing storage/treatment facilities identified in Table A.
- B. Indicate whether the USDA – NRCS was involved in the design of the existing storage/treatment facilities.
- C. Indicate whether the previously approved facilities have been altered or expanded.
- D. Accurate estimates of storm water volumes are necessary to calculate properly sized waste holding and treatment facilities. Wastewater from contaminated storm water inputs to the waste storage facilities must also be considered, i.e., rainfall on to the facility surface and runoff from the surrounding roof and guttering systems. Indicate whether the proposed or existing storage facilities will receive any storm water runoff.
  - a. Provide the dimensions and area (square feet, acres, etc.) from which runoff will enter the waste holding facilities. Indicate this area on the site map (as required in Section IX - Table G.).
- E. Provide the name of the person that designed your existing and or proposed storage/treatment facilities. In some instances this may be the owner of the facilities. Also, provide the date of the design, the organization (if applicable) and the phone number.
- F. The items listed in Section IV - Table G (below) must be provided, to DEQ, for each waste storage facility identified in Section IV - Table A as either proposed or existing which has not been either previously approved or was altered.

<i>Design calculations for volume (ft<sup>3</sup>) and estimated days of storage</i>	<i>Depth to seasonal high water table and separation to permanent water table</i>
<i>Description of liner material and permeability</i>	<i>Plan and cross-sectional views</i>
<i>Elevation of the lowest point of the berm</i>	<i>Soil types in area surrounding storage facility</i>
<i>Estimate of direction of ground water movement in area near storage facility (this may be done on site map)</i>	

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**Waste Storage Information**

**1. Design and Operation:**

- a. Any liquid manure collection and storage facility shall be designed and operated to:
  - (1) prevent point source discharges of pollutants to state waters except in the case of a storm event greater than the 25-year, 24-hour storm; and
  - (2) provide adequate waste storage capacity to accommodate periods when the ground is frozen or saturated, periods when land application of nutrients should not occur due to limited or nonexistent crop nutrient uptake, and periods when physical limitations prohibit the land application of waste.
- b. Any confined poultry feeding operation shall be designed and operated to:
  - (1) prevent point source discharges of pollutants to state waters except in the case of a storm event greater than the 25-year, 24-hour storm; and
  - (2) provide adequate waste storage capacity to accommodate periods when the ground is ice covered, snow covered or saturated, periods when land application of nutrients should not occur due to limited or nonexistent crop nutrient uptake, and periods when physical limitations prohibit the land application of waste.
- c. If after the effective date of this permit, a waste storage facility is planned for construction, a new permit application must be submitted to the Department prior to its construction. Additional conditions shall be met by the Permittee related to the siting, design and operation of the waste storage facilities added at the facility.

**2. Waste storage facilities**, other than dry poultry waste storage facilities, constructed after December 1, 1998, shall not be located on a 100-year floodplain.

3. **Earthen liquid waste storage facilities** constructed after December 1, 1998, shall include a properly designed and installed liner. Such liner shall be either a synthetic liner of at least 20 mils thickness or a compacted soil liner of at least one-foot thickness with a maximum permeability rating of 0.0014 inches per hour. A licensed professional engineer, an employee of the Natural Resources Conservation Service of the United States Department of Agriculture with appropriate engineering approval authority shall certify that the siting, design and construction of the waste storage facility comply with the requirements of this permit. This certification shall be maintained at the facility.

4. **Dry poultry waste storage facilities** may be constructed within the 100-year floodplain, when the following conditions are met:

- a. When the Permittee has no land outside the floodplain on which to construct the facility; and
- b. The facility is constructed so that the poultry waste is stored above the 100-year flood elevation or otherwise protected from floodwaters through the construction of berms or similar best management flood control structures.

5. **Poultry Waste Storage:** Poultry waste shall be stored according to the Nutrient Management Plan and in a manner that prevents contact with surface water and groundwater. Dry poultry waste that is stockpiled outside of the growing house for more than 14 days shall be kept in a facility or at a site that provides adequate storage.

Adequate storage shall, at a minimum, include the following:

- a. Poultry waste shall be covered to protect it from precipitation and wind;
- b. Storm water shall not run onto or under the stored poultry waste; and
- c. A minimum of two feet separation distance shall be maintained to the seasonal high water table or an impermeable barrier shall be used under the stored poultry waste. All dry poultry waste storage facilities that use an impermeable barrier shall maintain a minimum of one foot separation between the seasonal high water table and the impermeable barrier. Seasonal high water table means that portion of the soil profile where a color change has occurred in the soil as a result of saturated soil conditions or where soil concretions have formed. Typical colors are gray mottlings, solid gray or black. The depth in the soil at which these conditions first occur is termed the seasonal high water table. Impermeable barriers shall be constructed of at least 12 inches of compacted clay, at least four inches of reinforced concrete, or another material of similar structural integrity that has a minimum permeability rating of 0.0014 inches per hour ( $1 \times 10^{-6}$  centimeters per second).
- d. For poultry waste that is not stored under roof, the storage site must be at least 100 feet from any surface water, intermittent drainage, wells, sinkholes, rock outcrops, and springs.

6. **Notification Prior to Use:** The Permittee shall notify the Department's regional office at least 14 days prior to:

- a. Animals being initially placed in the facility; or
- b. Utilization of any new waste treatment or storage facilities.

7. **New, expanded or replacement poultry growing houses** that are constructed after December 1, 2000, shall not be located within a 100-year floodplain unless they are part of an existing, ongoing confined poultry feeding operation and are constructed so that the poultry and poultry waste are housed above the 100-year flood elevation or otherwise protected from floodwaters through construction of berms or similar best management flood control structures.

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## V. OTHER WASTE

- A. Explain how sewage from employees is handled.
- B. List wastes (e.g., wash down or dairy parlor waste, off-site generated waste) other than manure generated at the facility, which are generated or may be stored or treated in the waste treatment and/or storage facilities. Also indicate the ultimate disposition of the waste (i.e., which storage location).

## VI. LAND APPLICATION AND WASTE HANDLING PROCEDURES

- A. Indicate whether waste will be land applied.
- B. Indicate whether waste will be transferred off-site.
- C. Indicate whether off-site generated waste will be brought to the facility.

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### ***Nutrient Management Plan Information***

**Nutrient Management Plan (NMP) Requirements and Elements:** All AFO owners or operators shall implement and retain on site a Nutrient Management Plan developed by a certified Nutrient Management Planner in accordance with §10.1-104.2 of the Code of Virginia and approved by the Department of Conservation and Recreation.

The NMP shall be made available to Department personnel upon request. The NMP shall be enforceable through this permit.

The NMP shall address the following:

- a. form,
- b. source,
- c. amount,
- d. timing, and
- e. method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus loss to ground or surface waters.

The NMP shall contain at a minimum the following information:

- a. Site map indicating the location of the waste storage facilities and the fields where waste will be applied, unless the waste is transferred to another person in accordance with a permit;
- b. Site evaluation and assessment of soil types and potential productivities;
- c. Nutrient management sampling including soil and waste monitoring;
- d. Storage and land area requirements;
- e. Calculation of waste application rates;
- f. Waste application schedules; and
- g. A plan for waste utilization in the event the facility is discontinued.

**Waste Application:** Manure or poultry waste generated by this facility shall not be applied to fields owned by or under the operational control of either the Permittee or a legal entity in which the Permittee has an ownership interest unless the fields are included in the facility's approved NMP.

**Waste Transfer Requirements:**

- a. Poultry waste may be transferred from a permitted poultry grower to another person or poultry waste broker without identifying the fields where such waste will be utilized in the facility's approved Nutrient Management Plan the conditions of the permit are met.
- b. Manure generated by this facility may be transferred off-site for land application or another acceptable use approved by the Department, if one or more of the following conditions are met:
  - (1) The sites where the manure will be utilized are included in this permitted facility's NMP or another permitted facility's NMP; or
  - (2) Further treatment of the manure is used to create a product which can be marketed; or
  - (3) Other criteria approved by the Department.
- c. Prior to transferring manure or poultry waste to other persons, the Permittee must provide the recipient of the manure with the most current nutrient analysis of the waste.

Requirements for operations which accept off-site generated waste materials.

## VII. FARM OPERATING MANUAL

- A. Indicate if a Farm Operating Manual has been developed for this facility.
- B. If the response to A is yes, then provide the date of the last review/revision of the Farm Operating Manual.

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### ***Farm Operating Manual Information***

Permit requirements for development of a manual:

The Permittee shall develop and submit a Farm Operating Manual for approval by the Department within 90 days of the effective date of this permit. The Farm Operating Manual shall include at a minimum the following information:

- a. practices and procedures which will be followed to ensure that the waste storage facilities are designed and operated in accordance with the permit;
- b. practices, procedures and applicable best management practices (BMPs) which will be utilized to ensure compliance with the requirements of this permit including but not limited to the following:
  - (1) if applicable, identification of the location of BMP(s) that are installed or will be installed at the AFO facility, for BMP(s) that will be installed include the expected timeframe for installation;
  - (2) specification of appropriate maintenance that will be performed for each BMP(s);
  - (3) specification of the steps that will be taken in the event that a BMP(s) is found deficient,
    - (a) as a result of the visual inspections as required by the permit, or
    - (b) as a result of other routine inspections, as prescribed by the Farm Operating Manual, of BMP(s) utilized or installed in accordance with the permit.

The steps shall include any actions that will be taken to correct deficiencies in accordance with the permit.

- c. practices and procedures which will be followed to ensure that all equipment needed for the proper operation of the permitted facilities is maintained in good working order, including but not limited to the following:
  - (1) retention of the equipment manufacturer's operation and maintenance manuals or other reference source to allow for timely maintenance and prompt repair of equipment when appropriate; and
  - (2) specification of the frequencies of inspections in order to detect leaks on equipment used for liquid manure handling and land application; and
- d. an emergency plan which includes appropriate procedures for employees to follow in case of an emergency such as; an unauthorized discharge of manure, poultry waste, from the production area or catastrophic animal mortality. The emergency plan must include appropriate information for assistance with the particular emergency and must include contact information for local, state and federal agencies required to be notified in the case of any of the above mentioned events.

The Permittee shall operate the AFO facility in accordance with the approved Farm Operating Manual which becomes an enforceable part of the permit. Any changes in those practices and procedures shall be documented and submitted to the Department for staff approval within 90 days of the effective date of the changes. The existing manual shall continue to be implemented until the revised manual is approved by the Department. Upon approval of submitted manual changes, the revised manual becomes an enforceable part of the permit. Noncompliance with the approved manual shall be deemed a violation of the permit.

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## GROUNDWATER MONITORING PLAN

- A. If the facility has an existing permit, indicate whether groundwater monitoring is required.
- B. If groundwater monitoring is required; indicate if a groundwater monitoring plan has been developed for this facility.
  - a. If the response to B is yes, then provide the date of the last review/revision of the plan.
  - b. If the response to B is no, then explain why the plan has not been developed.

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### **Groundwater Monitoring Plan Information**

Permit requirements for development of a plan:

The Permittee shall develop and submit a Groundwater Monitoring Plan for approval by the Department within 90 days of the effective date of this permit.

The Groundwater Monitoring Plan shall include at a minimum the following information:

- (1) Procedures to ensure appropriate methods and practices are being used when monitoring groundwater, and
- (2) Procedures to ensure appropriate measures are taken where monitoring results demonstrate potential noncompliance with the permit and the approved monitoring plan.

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## VIII. ATTACHMENTS

- A. Indicate whether the completed and signed LGOF is attached to this application.
- B. Indicate whether a copy of the DCR NMP approval letter is attached to this application.
- C. Indicate whether a copy of the NMP approved by the DCR is attached to this application.
- D. Indicate whether the items you marked in Section IV - Table G are attached to this application.
- E. If the Farm Operating Manual has already been developed then indicate whether a copy of the plan is attached to this application.
- F. If the Groundwater Monitoring Plan has already been developed then indicate whether a copy of the Manual is attached to this application.
- G. Provide a site plan (map) for entire animal feeding operation which clearly identifies the structures and landscape features in Section IX - Table G.

*The attached copy of the Farm Operating Manual and the Groundwater Monitoring Plan may be a hard copy or an electronic copy.*

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### **Attachments Information**

#### **Local Government Ordinance Form (LGOF)**

State Law requires that the owner of any proposed pollutant management activities or those which have not previously been issued a valid VPA or VPDES permit must attach to the permit application, the completed LGOF. The LGOF is the notification from the governing body of the county, city or town where the operation is located that the operation is consistent with all ordinances adopted pursuant to Chapter 22 (§ 15.2-2200 et seq.) of Title 15.2 of the Code of Virginia.

#### **Nutrient Management Plan (NMP)**

State law requires that every owner of an animal feeding operation seeking coverage under the VPA general permit have a NMP. A copy of the operation's NMP must be attached to the Registration Statement; however, if a current NMP is on file at the DEQ regional office then it is not necessary to attach the NMP.

#### **Nutrient Management Plan (NMP) Approval Letter**

A copy of the letter from the Virginia Department of Conservation and Recreation (DCR) approving the operation's NMP and certifying that the NMP was developed by a certified nutrient management planner in accordance with §10.1-104.2 of the Code of Virginia must be attached to the permit application. However, if a current NMP approval letter is on file at the DEQ regional office then it is not necessary to attach the NMP approval letter.

**VIRGINIA POLLUTION ABATEMENT (VPA) PERMIT APPLICATION**

**FORM B - ANIMAL FEEDING OPERATIONS (AFOs)**

**I. OWNER/OPERATOR CONTACT INFORMATION**

Owner Name:					
Business Phone:		Mobile Phone:		Home Phone:	
Best day of the week & time to contact the Owner:	Day(s)		Time(s)		<input type="checkbox"/> AM
					<input type="checkbox"/> PM
Operator Name:					
Business Phone:		Mobile Phone:		Home Phone:	
Best day of the week & time to contact the Operator:	Day(s)		Time(s)		<input type="checkbox"/> AM
					<input type="checkbox"/> PM

**II. FARM/FACILITY INFORMATION**

Farm/Facility Name:	
Location:	

**III. ANIMAL TYPE AND NUMBERS**

In the table below, indicate the average weight and maximum number of each type of animal which will be maintained at the facility or the farm at any one time:

Animal Type	Average Weight	Maximum Number
Dairy Cattle		
Beef Cattle		
Swine		
Chickens		
Turkeys		
Other		



Owner Name:	
Farm/Facility Name:	

**IV. WASTE STORAGE**

A. In Table A (below), indicate the type, total number and design volume of existing and proposed waste storage facilities.

Type of Waste Treatment/Storage	Total Number Existing	Total Number Proposed	Design Volume (ft <sup>3</sup> )
Earthen Storage			
Storage Pit			
Anaerobic Lagoon			
Storage Tank			
Other:			
Other:			

B. Have the existing storage/treatment facilities identified in Section IV - A (above) been previously approved by the DEQ?  Yes  No  N/A; if yes proceed to a., if no enter "N/A" in a.

a. Provide the date of the DEQ approval \_\_\_\_\_

C. Was the USDA - NRCS involved in the design?  Yes  No

D. Have the previously approved facilities been altered or expanded?  Yes  No, if yes, provide the DEQ with the information listed in the Section IV - Table G below.

E. Will the proposed or existing storage facilities receive any storm water runoff?  Yes  No  N/A

a. If yes, provide total area (square feet, acres, etc.) from which runoff will occur and indicate this area on the site map (as required in Section IX - Table G).

Total area	
Dimensions	

F. Waste storage facilities designed by:

Name	
Date	
Organization	
Telephone	

G. The information found in Table G (below) must be provided, to DEQ, for each waste storage facility identified in Table A (above) as either proposed or existing which has not been either previously approved by DEQ or has been altered. *Provide check marks next to each item which will be attached to this permit application.*

<i>Design calculations for volume (ft<sup>3</sup>) and estimated days of storage</i>	<i>Depth to seasonal high water table and separation to permanent water table</i>
<i>Description of liner material and permeability</i>	<i>Plan and cross-sectional views</i>
<i>Elevation of the lowest point of the berm</i>	<i>Soil types in area surrounding storage facility</i>
<i>Estimate of direction of ground water movement in area near storage facility (this may be done on site map)</i>	

**V. OTHER WASTE**

A. Explain how sewage from employees is handled. \_\_\_\_\_

B. In Table B (below), list all wastes (e.g., wash down or dairy parlor waste, off-site generated waste) other than manure generated at the facility, which are generated or may be stored or treated in the waste treatment and/or storage facilities. Also indicate the ultimate disposition of the waste (i.e., which storage location).

Type of Waste	Volume (ft <sup>3</sup> /day)	Units (Gallons/Tons)	Storage Location

Owner Name:	
Farm/Facility Name:	

**VI. LAND APPLICATION AND WASTE HANDLING PROCEDURES**

- A. Will waste be land applied?  Yes  No
- B. Will waste be transferred off-site?  Yes  No
- C. Will off-site generated waste be brought to the facility?  Yes  No

**VII. FARM OPERATING MANUAL**

- A. Has a Farm Operating Manual been developed for this facility?  Yes  No
- B. If yes, provide the date of the last review/revision of the Farm Operating Manual. Date: \_\_\_\_\_

**VIII. GROUNDWATER MONITORING PLAN**

- A. If the facility has an existing permit, is groundwater monitoring required?  Yes  No  N/A
  - a. If yes, has a Groundwater Monitoring Plan been developed for this facility?  Yes  No  N/A
    - i. If yes, provide the date of the last review/revision of the Groundwater Monitoring Plan.  
Date: \_\_\_\_\_
    - ii. If no, please explain: \_\_\_\_\_

**IX. ATTACHMENTS**

- A. The completed and signed LGOF is attached:  Yes  No  On file with DEQ
- B. A copy of the DCR NMP approval letter is attached:  Yes  No  On file with DEQ
- C. A copy of the NMP approved by the DCR is attached:  Yes  No  On file with DEQ
- D. The items, as indicated in Section IV - Table G, are attached to this application.  
 Yes  No  On file with DEQ
- E. A copy of the Farm Operating Manual (if already developed) is attached:  
 Yes  No  On file with DEQ  N/A
- F. A copy of the Groundwater Monitoring Plan (if already developed) is attached:  
 Yes  No  On file with DEQ  N/A
- G. Provide a site plan (map) for entire animal feeding operation which clearly identifies the structures and landscape features found in Table G below:

<i>Animal housing and/or open lots where animals are kept (specify type for each facility, e.g. house, feed lot, barn, etc.)</i>	
<i>Waste storage facilities</i>	<i>Holding ponds</i>
<i>Piping to/from waste storage facilities</i>	<i>Surface waters</i>
<i>Land application sites adjacent to facility</i>	<i>Drainageways (e.g. ditches, swales)</i>
<i>Rock outcrops</i>	<i>Drinking water wells and springs</i>
<i>Sink holes</i>	<i>Occupied dwellings</i>
<i>Property lines</i>	<i>Roadways (route number)</i>
<i>Severe erosion</i>	<i>Slopes (greater than 8% by slope class)</i>
<i>Wet spots</i>	<i>100-year flood plain (provide elevations, if available)</i>
<i>Groundwater monitoring wells (provide identification number)</i>	

*The attached copy of the farm operating manual and groundwater monitoring plan may be a hard copy or an electronic copy.*