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AGENCY OF AGRICULTURE, FOOD & MARKETS

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Large Farm Operation Regulations

Effective Date: November 23, 1999

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Subchapter 1: Authority

These Large Farm Operations (LFO) Rules are adopted under the express authority of 6 VSA Chapter 215 Subchapter 3 Section 4852. The Commissioner is given authority to adopt rules pursuant to 3 VSA Chapter 25, for the implementation of the provisions of 6 VSA Chapter 215, Subchapter 3.

Related statutes include 6 VSA Chapter 215 Subchapter 3 Sections: 4849 regarding recycling animal waste nutrients; 4850 regarding definitions; 4851 regarding Permit Requirements for Large Farm Operations; 4852 (Rules); 4853 regarding informational meeting; 4854 regarding enforcement; and 4855 regarding appeals.

Subchapter 2: Declaration of Purpose

These Rules establish procedures and standards for the preparation and review of LFO permit applications, and the issuance of permits for the operation and the expansion of large farms, and/or the construction of new buildings for Large Farm Operations in Vermont. They are new Rules, and do not replace existing rules in Vermont.

The LFO program is designed to achieve the purposes of 6 VSA Chapter 215. The Vermont Department of Agriculture, Food, and Markets intends that these Rules will prescribe criteria that will cause a Vermont LFO operator to manage a Large Farm in a manner which achieves an equivalent technical standard as required by the federal Concentrated Animal Feeding Operations (CAFO) regulations (coded at 40 CFR Part 122.23 and Part 122 Appendix B).

Subchapter 3: Definitions

AAPs: means Vermont's Accepted Agricultural Practice Regulations adopted at Title 6, Chapter 215.

Animal Type: means livestock or domestic fowl type.

Animal Unit: means one thousand pounds of live body weight of livestock, also referred to as AUs in these Rules.

AUs are calculated by:

(a) Multiplying the number of each livestock type by the respective factor listed below, and adding up the Animal Units for each category to find the total number of Animal Units, as follows:

NUMBER OF:	MULTIPLIED BY:	ANIMAL UNITS:
Slaughter, Feeder, Beef, and Replacement Cattle	1.0	
Mature Dairy Cattle	1.4	
Swine over 25 Kg	0.4	
Sheep	0.1	
Horses	2.0	
XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX	Total # of AUs

or

(b) Another method, if based on live body weight of livestock and if approved in advance by the Commissioner.

Applicant: means a person applying for, or required to apply for, a LFO permit under Vermont law.

Barn: means a structure used for livestock or domestic fowl housing.

Common Waste Storage System: means shared manure storage lagoons, pits, or other structures, owned or leased by a single farming entity (individual or owners within a corporation), which is/are located adjacent to or on the LFO barn site.

Construction: means a type of LFO activity which requires a LFO permit in order to build a new barn or new barn extension which provides an opportunity to increase the number of livestock or domestic fowl housed regulated by 6 VSA Chapter 215 Subchapter 3, Regulation of Large Farm Operations.

Cropland: means land devoted to row crop, hay, or pasture production.

DAFM: means the Vermont Department of Agriculture, Food, and Markets.

Dirty Water: means precipitation or other water which has moved in, over or through a barnyard, manure, or other nutrient or pathogen laden matter, so that they have become co-mingled.

Discharge: means a release or the act of releasing waste matter, or the components thereof.

Domestic Fowl: means laying-hens, broilers, ducks, and turkeys.

Expansion: means a type of LFO activity which requires a permit in order to increase the number of Animal Units or domestic fowl of an existing farm operation. An expansion may occur with or without construction:

(a) when the number of AUs or domestic fowl are below the threshhold defined in the LFO law and an expansion is proposed which causes the farm operation to meet or exceed the LFO threshhold; or

(b) when the existing number of AUs or domestic fowl are at or above the threshhold defined in the LFO law and an expansion is proposed.

Farm: means the LFO facility, cropland, and non-cropland included in one or more parcels of land.

Groundwater: for the purpose of these Rules, it means water below the land in a zone of saturation, but does not include surface water.

Groundwater Quality Standards: means the primary and secondary groundwater quality standards listed in Appendix One of the Groundwater Protection Rule and Strategy adopted in accordance with 10 V.S.A. Chapter 48.

LFO: means Large Farm Operation(s).

LFO Facility: means the barns, other structures, and the land devoted to a waste storage facility (designed to meet or exceed Vermont NRCS Field Office Technical Guide Section IV Practice Code 313 or 425) or other structures created as best management systems constructed to control discharges to waters, designed, adapted, or used to house more than:

950 Animal Units of livestock; or

2,375 swine weighing more than 25 kilograms (55 pounds); or

95,000 laying-hens or broilers (if the facility has a continual flow water system); or

28,500 laying-hens or broilers (if the facility has a liquid manure system); or

4,750 ducks; or

52,250 turkeys, provided that

1. Such livestock or domestic fowl are confined:

for more than 45 days; and

in an area where vegetation doesn’t grow; and

2. Such livestock or domestic fowl are in a barn or adjacent barns owned by the same person; or

3. The barns share a common border or a common waste storage system.

Large Farm: means farm operations which exceed 950 Animal Units of horses, cattle, and sheep, or 2,375 swine each weighing over 25 kilograms (55 pounds), or 95,000 laying-hens or broilers (if the facility has a continual flow water system), or 28,500 laying-hens or broilers (if the facility has a liquid manure system), or 4,750 ducks, or 52,250 turkeys if the livestock or domestic fowl are in a barn or adjacent barns owned by the same person, or if the barns share a common border or have a common waste storage system.

Livestock: means cattle, swine, sheep, or horses.

NRCS: means United States Department of Agriculture (USDA) Natural Resources Conservation Service.

Non-cropland: means woodland or other areas where crops are not grown.

Nutrient Management: means managing the amount, the form, the placement, and the timing of application of plant nutrients for the purpose of obtaining optimum forage and crop yields, minimizing entry of nutrients into waters, and optimizing economic use of nutrients generated on- and off-farm.

Operating: means a type of Large Farm Operations activity which requires a permit for ongoing farming activities regulated by 6 VSA Chapter 215 Subchapter 3, Regulation of Large Farm Operations.

Permittee: means a person(s) or business(es) (corporation, etc) that has received a LFO permit.

VT Water Quality Standards: means the standards and criteria adopted by the Vermont Water Resources Board, pursuant to 10 VSA Chapter 47 Section 1252 (e).

Waste: For the purposes of these LFO Rules, waste includes manure, milkhouse waste, washwater, silage leachate, used bedding, barnyard runoff, or other dirty water.

Waste Management System: means a waste management program which involves a combination of an adequately sized storage system, field stacking, composting, or contracts which transfer the ownership of wastes generated at a LFO facility to another party for management in a manner determined by the Commissioner to assure no discharges will occur to waters, and to assure compliance with AAPs.

Waters: For the purposes of these LFO Rules, waters means groundwater and surface waters.

Subchapter 4: Who Is Required to Obtain a LFO Permit?

1. The following situations require a Large Farm Operation permit from the DAFM:

a. Farming operations meeting the Large Farm definition and existing at the time the LFO law was adopted in Vermont. This permit shall be obtained on a schedule established by DAFM;

b. Farming operations where a barn will be repopulated at or above numbers of livestock or domestic fowl to trigger the LFO permit requirement. The LFO permit shall be obtained prior to housing numbers of livestock or domestic fowl to trigger the LFO permit requirement;

c. Farming operations currently below the Large Farm threshhold, but prior to increasing the AU or domestic fowl numbers to more than those defined by the Large Farm definition with the construction of additional housing. The LFO permit shall be obtained prior to meeting the defined limit; or

d. Farming operations permitted pursuant to these Rules but prior to increasing the number of AUs or the number of domestic fowl beyond the limit allowed in that LFO permit . The LFO permit amendment shall be obtained prior to that expansion; or

e. The construction of a new barn which will create a Large Farm or expand an existing LFO, including:

(1) Construction of a new barn where no barn previously existed; or

(2) Construction or expansion of a barn that involves increased space, and housing livestock or domestic fowl in that space could trigger the LFO permit requirement. A LFO permit condition which authorizes construction will expire within two years (24 months). If construction is not substantially complete within 24 months, the permittee shall apply for a permit amendment to extend the authorized construction period.

2. The following situations may be exempted from the LFO permit requirement:

a. The Department is not required to meet the provisions of Title 6, Chapter 215 Subchapter 3, Section 4851 (c), regarding the 45 business day review period for applications submitted for LFO permits, when the number AUs or domestic fowl at the existing operation are below the LFO permit trigger requirement, and a farmer chooses to stay below the LFO permit trigger requirement, but who chooses to apply for a LFO permit.

b. A permit or amendment to a previously issued LFO permit is not required to replace an existing barn in use for livestock or domestic fowl production at its existing capacity.

c. A permit or amendment to a previously issued LFO permit is not required if a barn or barn extension is proposed to be constructed, that doesn't allow for an increase in AUs of livestock or the number of domestic fowl. For permitted operations that construct or expand in this manner, an annual reporting requirement regarding the number of AUs or domestic fowl on the farm shall be included in the issued permit.

3. Prohibitions

The following activities are prohibited at LFOs:

a. Construction of a barn designed to house the numbers of livestock or domestic fowl that would trigger the LFO permit requirement, without a LFO permit. Upon prior written approval from the Commissioner, an applicant may proceed to commence with site work at the applicant's own risk.

b. Operation of a LFO facility in a manner to cause a discharge to waters.

Subchapter 5: Program Administration:

Application Review, Permit Violations and Appeals

1. How to Apply for a LFO Permit

a. An applicant shall apply for a LFO permit in writing to the Commissioner, on a form provided by the DAFM, and shall provide supporting documentation for all of the applicable items included on the application form. At a minimum, the application shall describe:

(1) the existing barn structures, and any proposed new barn or expansion;

(2) the existing waste management structures or systems, and any proposed waste management structures or systems or expansions or modifications;

(3) existing number of all livestock or domestic fowl in the operation, and any proposed increase in number of livestock or domestic fowl;

(4) method used to calculate AUs, if farming with livestock;

(5) nutrient management plan which complies with AAPs and that accommodates the manure generated by all livestock or domestic fowl the LFO is managing on-farm plus any manure to be transferred off-farm for management at a location other than the LFO,

and the manure generated by all livestock or domestic fowl generated off farm whose nutrients are proposed to be managed at the LFO, all of which complies with the AAPs;

(6) a certificate from NRCS or a licensed professional engineer that all waste storage facilities or other BMP structures designed to control agricultural wastes at the LFO facility will meet NRCS standards and specifications, or meet an equivalent standard for the structures designed and constructed; and

(7) a plan that describes what the anticipated level of activity may be for each of the aforementioned elements, and a plan to manage the proposed operation's odor, noise, traffic, insects, flies and other pests.

2. Application Review, Time Limitations, and Permit Determination Alternatives

a. If an application is found to be incomplete, the Department will send a written request for additional information.

b. The application review period will not start until the contents of that request are submitted by the applicant in full. The day the application is deemed complete is day 1 of the 45 business day review limit.

c. In the absence of a permit determination by the DAFM within 45 business days, the applicant's permit is awarded by default.

(1) A permit awarded by default requires the permittee, upon request by the Commissioner or Commissioner's designee, to demonstrate: compliance with AAPs; compliance with adopted LFO Rules; compliance with LFO statutory criteria; and to demonstrate that the LFO facility will be managed consistent with a well managed, similarly sized farm of the same animal type; and that there will be no discharge to waters; and

(2) A permit awarded by default can be amended, conditioned, or revoked by the Commissioner.

d. The options available to the Commissioner for application determinations are to: approve as is; approve with conditions; or disapprove.

3. Revisions and Modifications to Permits or Plans

a. Prior to making a substantial change in the LFO facility or its operation, a Permittee shall submit a letter of intent to the Commissioner describing a proposed change. The Commissioner will determine whether a full application is required to accommodate that change, or whether a modification to an existing LFO permit is required, or neither. The Commissioner's written determination will be sent to the Permittee.

b. The Commissioner may decide to amend an existing LFO permit on his or her own initiative. Circumstances that may prompt such an initiative include, but are not limited to:

(1) a determination by the Commissioner that waters have not been adequately protected to meet AAPs. The permit amendment may include additional measures and limitations and may also include a compliance schedule;

(2) a determination by the Commissioner that odor, noise, traffic, insects, flies, or other pests are not managed consistent with a well managed, similar sized operation of the same animal type;

(3) a determination by the Commissioner that a field is no longer acceptable for spreading or spray irrigation;

(4) a determination by the Commissioner that the nutrient application rates need to be adjusted;

(5) a determination by the Commissioner that the management of the LFO facility, cropland, or non-cropland violates one or more AAP; or

(6) minor administrative errors in permits that necessitate correction in order for the permit to be accurate or reasonable.

c. Where Department-initiated modifications to the LFO permit require actions by the permittee, such actions shall be completed by the Permittee within the time frame established by the Department.

d. Prior to any modifications to a LFO permit, the Commissioner shall notify the permittee in writing of the proposed modification. The permittee shall have five business days to request to be heard regarding the proposed modification. If no such request is made, the Commissioner may modify the permit accordingly.

4. Transfer of Permit Ownership

a. A permittee may transfer permit ownership with the sale or lease of a LFO. Written notification shall be made by the original permittee to the DAFM within 10 days of that transaction. Said written notification shall include a statement signed by the new owner or lessee which indicates that the new owner or lessee understands and agrees to comply with the conditions of the transferred LFO permit.

b. The new owner or lessee shall notify the Commissioner in writing within 30 days of that transaction, describing any proposed changes in operation or facilities. No increase in number of AUs orchange in animal type is allowed to occur without a full review of the operation by the Department.

c. The Commissioner may determine that a new application, or an application amendment is required.

5. Appeal of Commissioner's LFO Permit Determinations

a. Only the applicant and the Commissioner are parties to a LFO permit appeal.

b. An applicant may appeal the Commissioner's final permit decision to the environmental court within 30 days of the Commissioner's final permit decision.

c. The notice of appeal shall be filed with the Commissioner under Rule 74 of the Vermont Rules of Civil Procedures.

6. Commissioner's Compliance/Enforcement Determinations

The Commissioner may seek enforcement remedies, including administrative penalties, under Sections 1, 12, 13,15, 16, and 17 of Title 6 with regard to any person who violates the terms or conditions of a LFO permit, provisions of the LFO law, or these LFO Rules.

7. Revocation of Permits

The Commissioner may, after due notice and an opportunity for a hearing with the Permittee, revoke a permit issued under this subchapter if, after investigation, the Commissioner deems the permittee to be in violation of any of the terms or conditions of a LFO permit, provisions of the LFO law, or provisions of these LFO Rules.

Subchapter 6: Informational Meeting Procedures

The Informational Meeting Procedures include:

1. DAFM shall hold an informational meeting for LFO projects which propose a new barn construction.

2. An informational meeting may be held by DAFM when an expansion is sought, if that barn is already subject to permitting requirements under 6 VSA Chapter 215 Subchapter 3, and if that expansion would increase housing for livestock or domestic fowl by more than 30% within a 12 month period. The decision to hold such a meeting rests solely with the Commissioner.

3. The applicant shall find a location for the informational meeting and schedule the public informational meeting after coordinating with the Department. Informational meetings shall be held in handicapped accessible locations, and where possible, in the municipality where the proposed LFO project is located.

4. The applicant shall coordinate public notification of the LFO project and the public informational meeting by issuing notice through a newspaper. A sample notification is found in Appendix I. Other forms of notice shall be approved in advance by the Commissioner.

5. The newspaper used shall be a paper of local distribution.

6. The published advertisement shall be at least two (2) columns wide by three (3) inches high.

7. The Applicant shall initiate the notice within one week of being notified by the DAFM that the application is administratively complete.

8. The purpose of the informational meeting shall be to provide an opportunity for the public to learn about the proposed project.

9. The public may submit written comment about a proposed LFO project for five (5) business days after an informational meeting.

Subchapter 7: Management and Design Standards

1. General Standards Applicable to all LFOs

a. The applicant shall demonstrate that adequate best management system structures are in place to assure tat there are no unpermitted discharges of agricultural wastes or dirty water from the facility to waters. All best management system structures shall be designed and constructed according to NRCS standards and specifications contained in Vermont NRCS Field Office Technical Guide Section IV; FSA Agricultural Conservation Program-eligible practices that are defined in the FSA Handbook "1-ACP or designed and certified by a professional engineer licensed in the State of Vermont to be equivalent to the performance standards listed above.

b. The applicant shall demonstrate that the LFO facility, cropland, and non-cropland will be managed in compliance with all applicable AAPs.

c. The applicant shall demonstrate that for all wastes which are land applied, the wastes are applied according to a nutrient management plan which balances nutrient loading of soils with crop yield goals for the cropland.

d. The applicant shall demonstrate that the livestock or domestic fowl wastes generated are stored so as not to generate runoff from a 25-year, 24-hour storm event.

e. The applicant shall demonstrate that all wastes as defined in these Rules and the AAP Rules are disposed of in accordance with these Rules and the AAPs Rules.

f. For LFO permits, or for changes in permitted animal type, the Commissioner may require:

(1) the applicant to demonstrate that the farm shall not generate odors of a type different than, or in excess of those from a well managed similar sized farm of the same animal type using a similar waste management system. The Department will use the American Society of Agricultural Engineers published Standards and Engineering Practices Data, ASAE EP379.1 DEC96, "Control of Manure Odors" as the standard when addressing livestock or domestic fowl manure odor issues;

(2) the applicant to demonstrate that the LFO facility shall not create noise disturbances in excess of those from a well managed similar sized farm of the same animal type;

(3) the applicant to demonstrate that the LFO facility shall not generate traffic flows and frequency at a greater level than those from a well managed similar sized farm of the same animal type; and

(4) the applicant to demonstrate that the LFO facility will not generate or breed flies, insects, or other pests above a level where adult flies, insects, or other pests moving off the farm premises are in excess of those from a well managed similar sized farm of the same animal type.

2. Specific LFO Structural Design Standards

a. The following aspects of an application shall meet or exceed the design standards of NRCS, or shall be designed by a professional engineer registered in Vermont:

(1) Plans and specifications for new or upgraded waste storage facilities or for new or upgraded runoff control systems shall be submitted in writing for approval prior to construction. Post construction documentation shall be submitted within 60 days of project completion, or as otherwise specified by the Commissioner; and

(2) The following containment (storage) or clean water runoff diversion design aspects of an application shall be affirmed to be designed to meet or exceed the standards described

in Vermont NRCS Field Office Technical Guide Section IV, or shall be designed by a professional engineer registered in Vermont. Any new construction, modifications, additions, or repairs of storage structures shall be in accordance with Vermont NRCS Field Office Technical Guide Section IV Practice Code 313 Waste Storage Facility - Standard and Specifications, Practice Code 425 Waste Storage Pond, or Vermont NRCS Field Office Technical Guide Section IV Practice Code 317, Composting Facility, or other appropriate waste storage facility(s) contained in the Vermont NRCS Field Office Technical Guide Section IV. Exceptions may be granted on a case-by-case basis by the Commissioner. Prior written approval is required.

(a) Waste Storage Facility: An adequately sized waste storage facility will hold all wastes (manure, bedding, milkhouse, and silage runoff [as well as roof runoff unless it is diverted elsewhere]) generated during 180 days, and be designed to handle a 24-hour, 25-year storm event. An alternative to providing 180 days worth of storage is developing a manure management program which may involve a combination of field stacking, composting, or contracts which transfer the ownership of manure to another party, for management in a manner determined by the Commissioner to assure no discharges will occur to waters, and to assure compliance with AAPs. In whole, a total of 180 days worth of waste storage or management shall be demonstrated:

(1) Waste storage facility(s) shall be operated and maintained in such a manner as to prevent leakage and adverse impacts to waters. Removal of material is required to avoid overtopping, and to create space for the ongoing generation of waste;

(2) Field stacking of manure may be permitted on a case-by-case basis. Field stacking of manure shall meet the criteria defined in NRCS Practice Code 313 and be operated in a manner which allows no discharge; and

(3) No field stacking of manure shall be authorized by the Commissioner if a portion of the waste storage structure (pit, lagoon, tankage or other contained space) is used to store whey or other wastes not generated on the farm.

(b) Clean Water Runoff: Clean water runoff shall be collected and diverted away from the barnyard so that it does not collect and carry sediment, nutrients, or waste. An alternative is to design the waste management structure to hold all roof runoff, in which case it may be diverted to that location. Permanent runoff control system(s) shall be designed, operated and maintained in accordance with requirements found in Vermont NRCS Field Office Technical Guide Section IV Practice Code.

(c) Runoff Control Systems (Installation) - The permittee shall contain contaminated runoff from roof areas, barnyards and feed storage areas by designing and installing a permanent runoff control system(s).

(d) Runoff Control Structure(s) Operation and Maintenance: All runoff control structures shall be operated and maintained in accordance with requirements in the Vermont NRCS Field Office Technical Guide Section IV Practice Code.

(e) Barnyard Runoff Treatment: Barnyards and/or feedlot runoff shall be diverted to a storage or treatment unit. Barnyards shall be assessed for potential of contaminating waters. A paved area may be necessary to allow for removal of manures and treatment of runoff. These areas shall be operated and maintained in accordance with requirements in the Vermont NRCS Field Office Technical Guide Section IV Practice Code 561.

(f) Milkhouse waste systems shall be accounted for in the design of the waste management system. Waste is to be collected and transported into the waste management structure or storage tank.

(g) Silage Runoff Systems shall be accounted for in the design of the waste management system. Waste is to be collected and transported into the waste management structure or storage tank.

(h) All storage of compost and the resulting leachate shall be conducted to prevent adverse impacts to waters. Compost and compost leachate shall be collected and spread on land without creating an adverse impact to waters.

(i) Compost Leachate Management Plan shall include in the nutrient management plan, provisions for the proper application and utilization of compost leachate. This also includes requirements for daily spreading records and annual reporting requirements.

3. Evaluations

a. The following aspects of Runoff Control Structures and Compost Storage Structures and Leachate Collection shall meet or exceed the design standards of NRCS, or shall be designed by a professional engineer registered in Vermont:

(1) the adequacy of the structure lining to prevent exfiltration of manure contaminants to groundwater;

(2) the proximity of bedrock and the water table to the floors of the structure;

(3) scaled drawings showing locations of the storage units and runoff control systems, and surface waters, water supply wells, property boundaries, elevations, and other pertinent information;

(4) any post construction documentation available, including date and materials of construction;

(5) existing storage structure’s ability to meet the performance criteria and specifications outlined in USDA NRCS Standard Number 313, Waste storage facility, or Vermont NRCS Field Office Technical Guide Section IV Practice Code 425, Waste Storage Pond, or other appropriate waste storage facility(s) contained in Vermont NRCS Field Office Technical Guide Section IV;

(6) the adequacy of the systems to control manure runoff generated by a 25-year, 24-hour storm event for the location; and

(7) a full description of the system's components, including any reference to practices specified in Vermont NRCS Field Office Technical Guide Section IV.

b. Additional Limitations:

In the event that a permanent runoff control system or compost storage or leachate collection system does not prevent discharges to waters, or does not conform to AAPs, the permit may be modified to require additional discharge limitations and a schedule of compliance to achieve the limitations.

c. Compost Storage Structures and Compost Leachate Collection Systems shall include:

(1) provisions for the collection, storage, treatment, and land application of compost and compost leachate; and

(2) provisions for the proper application and utilization of compost leachate including daily spreading records and annual reporting requirements.

4. Nutrient Management Design Standards for Crop and Non-Cropland Areas

a. The following management or maintenance aspects of an application shall meet the standards of the AAPs:

(1) Nutrient management plans shall address the following:

(a) total amount of manure and other wastes produced annually by the LFO facility;

(b) total amount of manure and other wastes produced by other farms if the cropland and non-cropland on those farms will be used to land spread manure and other wastes from the LFO facility;

(c) number of AUs of livestock or number of domestic fowl at other farms if the cropland or non-cropland on those farms will be used to land spread manure and other wastes from the LFO facility;

(d) total amount of manure and waste by-products produced which is spread annually;

(e) normal method of applying and incorporating wastes, and equipment used to do so;

(f) list all the types of wastes proposed to be landspread (manure, bedding, washwaters, runoff water, whey, biosolids), and other methods of managing manure and other wastes besides land spreading;

(g) list of all owned fields with acreages and where manure and wastes will be spread;

(h) list rented or leased land where manure or other wastes will be spread, and each field's acreage;

(i) crop history (previous season's crop and future cropping plans, including estimated nutrient uptake);

(j) total amount of nutrients applied annually from all sources (include on farm generated wastes as well as off farm wastes such as whey, fertilizer, biosolids, etc.);

(k) proposed nutrient application rates for each field (based on an actual manure analysis and a soil test based recommendation);

(l) soil test results for one-third of the land base where wastes will be land spread at the time of filing the nutrient management plan;

(m) proposed crop and yield information;

(n) a current manure analysis from each structure, and a plan for updating manure analyses at least annually;

(o) a sample of a daily spreading log sheet;

(p) description of procedures for annual updates of manure management and waste by product plan;

(q) compost management details, such as amount and type of material composted, leachate collection and disposal methods (equivalent to NRCS Practice Code 680);

(r) soil analyses for each field, and a plan for updating that involves sampling for available and reserve phosphorous, potassium, aluminum, pH, and nitrogen. All fields shall be sampled on a rotational basis such that at least one-third are sampled every year and all are sampled over any three year period;

(s) total amount of nutrients applied to soil on an annual basis shall be within recommended ranges for the N and Phosphorous requirements of the crop to be grown, based on soil tests. In determining the appropriate amount of nitrogen to apply, refer to soil test; in determining the appropriate amount of phosphorous to apply, refer to soil test or nutrient management consultant for recommendations or utilize other sites specific models for appropriate application rates; and

(t) On a field-by-field basis, identify the soil loss tolerance status ("T").

(2) Changes in the manure management plan and waste by-product plan shall be submitted to the department in writing for approval prior to their implementation so that

the manure management and waste by-product plan on file may be amended. Changes to themanure management and waste by-product activities include, but are not limited to:

(a) application rates;

(b) new spreading sites;

(c) changes in number or types of livestock or domestic fowl;

(d) changes in waste storage procedures; and

(e) changes in the type of waste spreading equipment.

b. The total amount of nutrients applied to the soil on an annual basis shall be within ranges recommended by the laboratory that performed the testing, for the nitrogen and phosphorous requirements of the crop to be grown. If the level of available phosphorous in the soil is at a level considered to be excessive by the laboratory performing the analysis, and then confirmed by the Department, then additional steps shall be taken in the management of nutrients on that field, in accordance with available tools and professional recommendations.

c. Annual soil testing shall be performed if the total amount of nutrients applied to the soil on an annual basis is greater than the recommended ranges for the nitrogen or phosphorous requirements of the crop to be grown.

d. Non-cropland applications of manure and other wastes may occur if preapproval from the Commissioner is granted in writing. Considerations may include acceptable application timing, amount of application, methods of application, depth to bedrock and groundwater, etc.

e. If the milkhouse waste are not mixed within the manure storage system, then specific methods of storage and spreading shall be detailed, including, but not limited to a system to prevent adverse impacts to waters.

5. Waste Management Standard for wastes transferred to another manager:

a. All wastes generated by the LFO facility which are transferred to another manager shall require a contract or other written agreement including sufficient detail to assure no discharges to waters, and to assure compliance with AAPs.

b. The Permittee shall include in the annual report the volume of the waste transferred and the way in which it was managed.

6. Site/ Soil Design and Operations Standards

a. Manure and other wastes shall not be spread:

(1) within restricted areas, including but not limited to: streams; rivers; lakes; ponds; and water supply wells; and

(2) in a waterway, terrace channel or any areas where there may be a concentration of runoff.

b. Manure and other wastes spread on cropland that is subject to overland flow from adjacent surface water shall be incorporated within 48 hours. This restriction does not apply to no-till land, or land planted to a cover crop.

c. For fields receiving manure and other wastes:

(1) soil analyses for each field, and a plan for updating that involves sampling for available and reserve phosphorous, potassium, aluminum, pH, and nitrogen. All fields used for spreading shall be sampled once every three years;

(2) A field-by-field nutrient management plan shall be developed.

d. Cropland or non-cropland used to spread wastes from the facility shall be managed in a manner that results in an average soil loss of less than or equal to two times the Soil Loss Tolerance for the prevalent soil type as calculated through application of the Revised Universal Soil Loss Equation, or a similarly accepted model.

e. Surface applied manure and other wastes shall not:

(1) runoff the intended site during applications or

(2) pond on the intended site at any time.

7. Groundwater Quality Standards

a. To fulfill the Department's authority to protect water quality, the Commissioner supports the purpose, principles, directives and goals of Vermont's Groundwater Protection Rule and Strategy. As a state agency with the authority to manage activities that may affect groundwater, the Department of Agriculture will use the standards and criteria contained in the Groundwater Protection Rule and Strategy as guidance for the Department's own water quality management programs.

b. Large Farm Operations shall be conducted so that the concentration of regulated compounds in groundwater do not reach or exceed the primary or secondary groundwater quality enforcement standards identified by Appendix One of the Groundwater Protection Rule and Strategy in accordance with 10 V.S.A. Chapter 48.

c. Large Farm Operations shall be conducted with the goal to reduce the concentration of regulated compounds in groundwater to the preventive action levels (PALs) of the primary or secondary groundwater quality standards identified by Appendix One of the

Groundwater Protection Rule and Strategy when monitoring indicates the presence of these regulated compounds in groundwater that exceed the preventive action levels.

Subchapter 8: Permittee Responsibilities

1. Permittees shall comply with all conditions of the permit. Any permit non-compliance is a violation of the permit and is grounds for enforcement action, permit revocation or modification, or denial of a permit reissuance application, including expansions.

2. Records that Shall be Maintained by the Permittee:

a. The LFO permit shall define the frequency of testing and record development.

b. The Department shall have access to all records that are required to be maintained by the permittee.

c. All records, reports, data required by these Rules or the LFO permit shall be kept by the permittee for at least five years from the date the record, report, or data was produced. The Department may request that this period be extended by written notification to the permittee.

d. All results from composite sample analyses (soil, manure, other wastes) shall identify:

(1) the date, exact place, method, and time of sampling or measurement;

(2) the individual who performed the sampling or measurements;

(3) the date the analysis was performed;

(4) the individual who performed the analysis;

(5) the analytical techniques or methods used; and

(6) the results of the analysis.

e. Logs or Spreading Records for Manure and other wastes applied to fields: All manure and other wastes that are spread shall be documented on log sheets. Log sheets shall include field name or number; dates of spreading; whether each field is owned or leased; gallons per acre or tons per acre of manure or waste spread each date; grade and tons per acre of commercial fertilizer applied; name of waste structure from which manure or other waste came; and last manure analysis for each waste structure.

f. Waste storage facility(s) inspection: The engineering evaluation of earthen and concrete waste storage facility(s) operated by the permittee shall include the existing waste storage facility(s)' ability to meet the intent of the performance criteria and specifications outlined in Vermont NRCS Field Office Technical Guide Section IV.

g. Waste storage facility(s) inspection shall be conducted for cracks and corrosion. In addition, any earthen manure storage structures shall be inspected for damage, including that from frost, equipment and rodents. The inspection reports shall be maintained by the permittee and shall be made available for inspection by the Department.

h. Composting Structure(s) Inspection shall include records of whether there was evidence of cracks and corrosion. In addition, any earthen structures shall be inspected for rodent damage. The inspection reports shall be maintained by the permittee and shall be made available for inspection by the Department.

i. Inspection reports, at a minimum, shall include:

(1) the date and names of persons performing the inspection;

(2) an inspection description including the components inspected;

(3) details of what was discovered during the inspection;

(4) recommendations for repair or maintenance; and

(5) any actions taken.

3. Records that Shall be Submitted by the Permittee

a. The permit will include dates by which compliance reports shall be completed. Written reports shall be received by the DAFM no later than 14 days after the scheduled completion date.

b. All reports required by a LFO permit shall be signed by the owner of the LFO facility, and in the case of a corporation, a principal executive officer or a duly authorized representative having overall responsibility for operation of the facility for which the permit is issued.

c. Non-compliance with a permit condition shall be reported by the Permittee to the DAFM within 24 hours, or during the next business day following the non-compliance. Said report shall include:

(1) which permit condition was not met;

(2) the cause of non-compliance;

(3) a description of remedial actions taken; and

(4) an estimate of the effect of the non-compliance event on the permittee's ability to meet any remaining schedule dates.

d. The Permittee shall notify the Department, within 48 hours, or the next working day, in the event that a spill or accidental release of any nutrient waste results in a discharge to waters. Spills of materials other than nutrient waste must be reported as required by other existing state and federal rules.

e. Farm Water Supply Requirements include sampling and analyzing the farm water supply for each barn on the LFO facility within 500 feet of row cropland or with a waste management system for nitrates, chlorides, total coliform and e-coliform, and for soil-applied pesticides identified by the Department. If nitrate levels are above 5 ppm nitrate-N or soil-applied pesticides are detected, reanalyze annually until nitrate levels are below 5 ppm, chloride levels are below 250 ppm or soil-applied pesticides are not detected.

f. Annual reports shall be submitted by all LFO operators to the Department no later than February 15 of each year.

g. Annual reports shall include:

(1) all the information required by Vermont NRCS Field Office Technical Guide Section IV Practice Code # 590, Nutrient Management, and an accounting of Animal Units; or

(2) all of the following:

(a) manure analysis: submit sample results from each waste management structure annually. This includes waste management structures on other farms, if manure or other nutrient wastes from those farms will be land spread on fields associated with the LFO. The frequency of sampling and analysis may be reduced by written authorization from the Commissioner. The laboratory analysis report shall include the moisture content of the manure and the available nitrogen, phosphorus and potassium content, calculated per ton or 1,000 gallons of manure or other nutrient waste;

(b) total amount of manure and other nutrient wastes produced by the facility;

(c) soils analyses: submit sample results for one-third of the fields each year. The frequency of sampling may be reduced by written authorization from the Commissioner. Soil analyses for each field, shall include results of: available and reserve phosphorous, potassium, aluminum, pH, and nitrogen.

(d) number of domestic fowl at the facility;

(e) number of AUs of mature livestock at the facility;

(f) number of AUs of young livestock at the facility;

(g) total amount of manure and other nutrient wastes produced by other farms if the cropland and non-cropland on those farms will be used to land spread manure and other wastes from the LFO facility;

(h) number of AUs of livestock (identified as young and mature) and number of domestic fowl at other farms if the cropland or non-cropland on those farms will be used to land spread manure and other nutrient wastes from the LFO facility;

(i) acres of owned land devoted to row crops;

(j) acres of leased or rented land devoted to row crops;

(k) acres of owned land devoted to hay or pasture;

(l) acres of leased or rented land devoted to hay or pasture;

(m) estimated total pounds of total nitrogen, phosphorous, and potassium produced on the facility and land applied;

(n) estimated total pounds of total nitrogen, phosphorous, and potassium produced on the facility and transferred to other managers;

(o) estimated total pounds of total nitrogen, phosphorous, and potassium produced on other farms and used at the LFO facility;

(p) a certification by the permittee that all BMP structures have been inspected during the previous year and that they are being managed to and that they are performing to design standards;

(q) results from water supply tests taken during the previous reporting period.

h. Compost Leachate Analysis: If the composting area is not covered, and the leachate is land applied, submit the results of the analysis of two representative leachate samples annually, of the compost leachate landspread with the Annual Report. The laboratory analysis report shall include Total Nitrogen, phosphorus and potassium content (in parts per million) of the leachate.

i. The Permittee shall furnish the Department, within a reasonable time, any information which the Department may request in order to determine compliance with the permit. The Permittee shall also furnish the Department, upon request, copies of records required to be kept by the Permittee.

4. The Permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records are required under the conditions of the permit.

b. Have access to and copy, at reasonable times, any records that are required under the conditions of the permit or the LFO Rules.

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under the permit.

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance, any substances or parameters at any location.

Appendix A

SAMPLE PUBLIC NOTICE

NOTIFICATION OF INFORMATIONAL MEETING

LARGE FARM PERMIT APPLICATION

Notice is hereby provided that [insert farmer name] of the [name of farm] farm in the town(s) of _____, _____, _____, and _____ Vermont has submitted an
application to the Vermont Department of Agriculture, Food, and Markets for a Large Farm
Operation Permit.

The application addresses the farm's use of nutrients on the fields, the control of runoff, the storage
of manure and other wastes, and the construction of a new barn.

An informational meeting will be held by the Vermont Department of Agriculture, Food, and Markets
on _____ [day of week], _____

[month] ___[day], 1999, at _____[time]. The meeting will be held in the _____

[name of room] in the _____ [name of building] located on
_____
[name of street] in _____[name of town].

The purpose of the meeting will be to provide the public an opportunity to learn about the project.

Any questions you have regarding the project or the meeting may be submitted to:

Katie Gehr
LFO Program Manager
VT DAFM
116 State Street, Drawer 20
Montpelier, VT 05620
(802) 828-3476
(802) 828-1410 fax
katie@agr.state.vt.us