IMPLEMENTATION GUIDANCE FOR NPDES CAFO PERMITS AND WATER QUALITY MANAGEMENT PERMITS FOR MANURE STORAGE FACILITIES

386-2100-001

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Clean Water

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TITLE: Implementation Guidance for NPDES Concentrated Animal Feeding Operation (CAFO) Permits and Water Quality Management Permits for Manure Storage Facilities

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AUTHORITY: 25 Pa. Code Chapters 91.36 and 92.5a

POLICY: This guidance will be used by Department of Environmental Protection (DEP) regional permitting staff in the review of applications for NPDES CAFO permits and for Water Quality Management permits for manure storage facilities.

PURPOSE: This guidance has been developed to clarify the intent of the October 2005 changes to Chapters 91 and 92 of DEP's regulations regarding agricultural operations that generate or apply manure. The document is intended for use by permit applicants as well as by DEP permit review staff in preparing and reviewing, respectively, NPDES CAFO permits and Water Quality Management permits for manure storage facilities. This guidance, if followed, should improve the completeness of applications and the consistency among permit reviewers in different regions of the Commonwealth.

APPLICABILITY: This guidance applies to agricultural operations that are required to obtain CAFO or Water Quality Management permits.

DISCLAIMER: The policies and procedures outlined in this guidance document are intended to supplement existing requirements. Nothing in the policies or procedures will affect regulatory requirements.

The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of the Department to give these rules that weight or deference. This document establishes the framework, within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

PAGE LENGTH: 17 pages

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Introduction

This implementation guidance has been developed to clarify the intent of the October 2005 changes to Chapters 91 and 92 of DEP's regulations regarding agricultural operations that generate or apply manure. The document is intended for use by permit applicants as well as by DEP permit review staff in preparing and reviewing National Pollutant Discharge Elimination System (NPDES) Concentrated Animal Feeding Operation (CAFO) permits and Water Quality Management Permits for manure storage facilities. Use of this guidance should result in more complete applications and more consistent reviews by DEP staff. It should be noted that this guidance is intended to supplement, rather than supplant, materials and instructions found in the Pennsylvania Technical Guide, the Manure Management Manual, and the Instructions for Completing Module 18 (for Water Quality Management Permits for Manure Storage Facilities).

The guidance is laid out in four sections. The first section covers changes in the Chapter 91 regulations pertaining to manure storage facilities and land application. The second section covers changes in the Chapter 92 regulations pertaining to CAFOs. The third section provides details on what specifically must be submitted to meet CAFO application requirements. The final section describes additional recommended procedures associated with CAFO and Water Quality Management permits.

I. Significant Changes to Chapter 91 (Manure Management; effective October 22, 2005)

A. Definitions (§91.1)

New definition for "agricultural process wastewater," including (but not limited to), cleaning wastewaters, milkhouse wastewaters, overflows from watering systems, and egg wash water. This definition does not include food-processing waste such as milk processing wastewater, or slaughterhouse wastes.

Implementation: For the purpose of storage, agricultural process wastewater is now regulated under the Chapter 91 regulations as manure. Agricultural process wastewater can be mixed with manure. Land application of mixtures of manure and process wastewater can be done as manure, provided that the volume and nutrient content of process wastewater is adequately taken into account. Land application of egg wash water will be included in the Nutrient Management Plan (NMP), with the application rates based on nutrient needs of the crops, taking hydraulic loading rates into consideration.

In addition, the county conservation districts will contact the DEP regional office when an NMP is submitted for an operation that is a CAFO. This will give the DEP regional office the opportunity to evaluate any other pollutants such as egg wash water or food processing wastes, and the consequent hydraulic loading rates. The DEP regional office will work with the reviewer to incorporate any appropriate Best Management Practices (BMPs) for non-manure pollutants, as well as any other CAFO-specific nutrient management planning requirements. For a description of the review process, see Provision III.C.

B. Manure Storage Facilities (§91.36(a))

1. Professional Engineer (PE) Certification Requirement (§91.36(a)(2))

All new or expanded manure storage facilities containing liquid or semisolid manure, at all farms, must obtain a Water Quality Management (WQM) permit unless the design and construction are certified by a PE as conforming to the "Manure Management Manual" and PA Technical Guide. The owner or operator shall retain a copy of the engineer's certification. (See Appendix B.)

Implementation: This provision is not new to the program, but is new to the regulations (previously contained in the Manure Management Manual). Consultants should continue to provide copies of engineer's certifications to the farm owner or operator and advise them to retain a copy at the farm in the event that DEP staff requests it.

2. Permit Requirements for Liquid/Semi-Solid Storages (§91.36(a)(4))

Regardless of whether a permit is required or not, ALL liquid/semi-solid manure storage facilities must have design prepared, construction overseen, and certification done by a PE. Any new or expanded liquid or semi-solid manure storage facility (pond or structure) with a capacity of equal to or greater than 2.5 million gallons must be permitted (WQM permit) prior to construction. Any

liquid or semi-solid manure storage pond (lined or unlined) with a capacity between 1 and 2.5 million gallons must be permitted prior to construction if (1) the nearest downgradient stream is High Quality (HQ) or Exceptional Value (EV) under Chapter 93 or (2) the nearest downgradient stream is impaired[1] due to nutrients from agricultural activities. (For a listing of the permit requirements, see Appendix B.)

Implementation: A "manure storage facility" is defined in Chapter 91.1 as "A permanent structure or pond, a portion of a structure or pond, or a group of structures or ponds at one agricultural operation, utilized for the purpose of containing manure or agricultural process wastewater. This includes concrete, metal or other fabricated tanks and underbuilding structures, as well as earthen and synthetically-lined manure storage ponds."

DEP interprets this definition as any facility that is not conveyance and will store manure (or agricultural process wastewater) for any period of time. Structures that convey manure and agricultural process wastewater by gravity, such as gravity reception pits, lanes, and transfer pipes are generally NOT storage. This includes "flush systems" in which water is pumped into pits, lanes, or pipes to facilitate gravity conveyance.

However, structures such as a "pull-plug" shallow pit or a pit that receives manure, which then flows or is pumped to a larger storage facility, are considered to be manure storage facilities. As such, the storage volume is to be included when computing the operation's manure storage capacity. Also, these structures, if constructed after January 29, 2000, are subject to the requirement to be designed, overseen, and certified by a registered PE, regardless of whether or not they require a permit. There are many other possible scenarios regarding storage that cannot be fully accounted for in this guidance. Operators who intend to build a new manure storage facility or to expand an existing one needs to accurately delineate their storage and conveyance facilities in order to comply with the PE design and WQM permitting requirements in Chapter 91. DEP's regional permitting staff are available to answer questions concerning this policy.

For evaluating storage capacity permitting triggers under Chapter 91, do not include the minimum regulatory required freeboard (6", 12", or 24") when calculating capacity. Regardless of whether or not the farm is a CAFO, a WQM permit is required under the regulations if the manure storage capacity of the proposed storage facility (including the capacity of existing on-site storage facilities) will be at least 2.5 million gallons.

For operations that plan to build a new storage unit, if the total manure storage capacity of the operation (including the capacity of proposed and existing on-site storage units) will be at least 1 million gallons but not more than 2.5 million

[1] "Impaired" refers to waters listed on the EPA Section 303(d) list. Special protection waters can be found by consulting the Chapter 93 list (http://www.pacode.com/secure/data/025/chapter93/chap93toc.html) and the Existing Use list (http://www.dep.pa.gov/Business/Water/CleanWater/Pages/default.aspx). Existing Use determinations may also be made in the context of a permit decision, so it is best for applicants to contact the DEP regional office for verification.

gallons, the applicant will need to ascertain if the facility is located in a special protection watershed or in a watershed impaired by nutrients from agriculture.[2] WQM permits continue to be required for liquid or semi-solid manure storage facilities at any CAFO with greater than 1,000 AEUs.

3. Design Criteria for Swine, Poultry, or Veal Calves Storages (§91.36(a)(5))

For new or expanded CAFOs (after April 14, 2003) that house swine, poultry, or veal calves, the manure storage facilities that contain manure from those animal groups must be designed to prevent surface water discharges at the 100-year, 24-hour storm event. This design criterion is applicable to any manure storage facility that contains manure from these three animal groups, even when that manure is commingled with manure from other animal groups.

Implementation: At these new or expanded CAFOs, a manure storage facility that receives precipitation and/or runoff will need to be sized for this larger storm event, under the new regulations. If the operation has animal groups other than swine, poultry, or veal calves, and stores that manure separately, the regulations say that that storage unit must be designed for at least the 25-year, 24-hour storm.

4. Freeboard Requirements for Storages (§91.36(a)(6))

If a liquid or semi-solid manure storage facility is exposed to precipitation, it needs to have a minimum of 2 feet of freeboard if it is located at a CAFO with over 1,000 AEUs that was a new or expanded operation after January 29, 2000. For liquid or semi-solid manure storage facilities that are not exposed to precipitation, a 6-inch minimum freeboard is acceptable. All other liquid or semi-solid manure storage ponds must have a minimum freeboard of 12" and all other liquid or semi-solid storage structures must have a minimum freeboard of 6".

Implementation: Operators must maintain the required regulatory freeboard at all times. This becomes especially important during the winter months when weather conditions can make land application of manure infeasible. To assist operators in complying with this requirement, DEP expects that CAFO NMPs will include an appropriate storage capacity level at the beginning of the winter season. This should be consistent with and incorporated into the Operation and Maintenance Plan prepared under the Natural Resources Conservation Service (NRCS) conservation practice standard "Waste Storage Facility."

The CAFO self-inspection reporting system will be used to compare the actual vs. planned storage levels. DEP expects that CAFO permittees will submit their fourth quarter reports to DEP with this actual storage level information. If the planned storage level is exceeded, then the permittee needs to explain to DEP and the NMP reviewing authority his/her plan for storing and handling manure throughout the winter. This is not an enforceable NMP or CAFO permitting condition, but is intended to increase the permittee's awareness of the importance

[2] Contact DEP's Water Quality Division at 717-787-9637 for assistance in determining whether your watershed is on the 303(d) list or is in a High Quality or Exceptional Value watershed.

of proper handling of manure in winter. Winter land application of manure is permissible, as long as it is done consistent with Chapter 83 regulations and in accordance with the CAFO's approved NMP.

C. Land Application of Manure (§91.36(b))

1. Basic Requirement for All Farms (§91.36(b)(1))

All land application must be conducted in accordance with a plan that includes manure and soil testing and calculation of proper levels of nitrogen and phosphorus, or a WQM permit or DEP approval is required.

Implementation: This regulation is similar to the previous language, except that clarification is provided on the minimum requirements for an acceptable "manure management plan." This basic requirement applies to all farms that land apply manure. Guidance and a sample plan are contained in the Manure Management Manual. An approved NMP is one method to comply with this regulation.

2. Setback/Buffer Requirements for CAOs and Importers (§91.36(b)(2))

For all Concentrated Animal Operations (CAOs) and importers of CAO or CAFO manure (including farms receiving brokered manure from CAOs or CAFOs), there shall be no mechanical land application within 100 feet of surface waters or within 35 feet of surface waters if there is a vegetated buffer.

For these setbacks/buffers, "surface waters" are defined as a perennial or intermittent stream with defined bed and bank, a lake, or a pond, for the purposes of §91.36(b)(2) only. "Vegetated buffers" are defined as permanent strips of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for purposes that include slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential pollutants from leaving the field and reaching surface waters.

Implementation: This subsection helps distinguish between two types of setback/buffer requirements – one for CAOs and importers (from CAOs or CAFOs), and one just for CAFOs. The two types differ in the type of water body that the setback/buffer applies to. Setbacks/buffers for land application at CAFOs apply to "surface waters" as defined in Chapter 92. Setbacks/buffers for CAOs and importers of either CAO or CAFO manure apply to "perennial or intermittent stream with defined bed and bank, a lake, or a pond," which is a narrower scope than the CAFO home-farm setback/buffer.

The setback/buffer requirement for CAOs and their importers in §91.36(b)(2)(i)-(ii) is a requirement that is administered by the State Conservation Commission (SCC) under the Act 38 program, and found in 25 Pa. Code Chapter 83, Subchapter D. §83.301(b) of the Nutrient and Odor Management Regulation, which became effective on October 1, 2006, replaced these subsections of the DEP regulations, as specified by the Environmental Quality Board (EQB) when our new regulations were published.

However, DEP will provide oversight for setbacks/buffers at lands owned and/or rented by the permittee, which are included in the CAFO NPDES permit, and for CAFO importer sites.

3. Setback/Buffer Requirements for CAFOs (§91.36(b)(3))

Setbacks/buffers for CAFOs are specified in §92.5a(e)(1)(i).

Implementation: This is simply a cross-reference to §92.5a(e)(1)(i), and reinforces the distinction in the two types of setbacks/buffers described above. The EQB wanted to have all of the setbacks shown in one place in the regulations, as part of the Agricultural, Communities and Rural Environment (ACRE) negotiations, so they are all listed in §91.36(b). These CAFO setbacks/buffers apply to lands owned and/or rented by the permittee, which are included in the CAFO NPDES permit.

II. Significant Changes to Chapter 92 (CAFOs; effective October 22, 2005)

A. CAFO Definition (§92.1)

In addition to the existing criteria of > 1,000 AEUs and CAO > 300 AEUs, the definition of a CAFO includes a new criterion: any agricultural operation defined as a large CAFO under the federal regulations at 40 CFR 122.23. The previous category of operations that have discharges to surface waters in an event less than the 25-year, 24-hour storm has been deleted.

Implementation: Large CAFO thresholds under the federal regulations include: 700 mature dairy cows, whether milked or dry; 1,000 veal calves; 1,000 cattle other than mature dairy cows or veal calves; 2,500 swine each weighing 55 pounds or more; 10,000 swine each weighing less than 55 pounds; 500 horses; 10,000 sheep or lambs; 55,000 turkeys; 30,000 laying hens or broilers, if using a liquid manure handling system; 125,000 chickens (other than laying hens) if using a dry handling system; 82,000 laying hens if using a dry handling system; 30,000 ducks, if using a dry manure handling system; or 5,000 ducks, if using a liquid manure handling system.

B. Other Definitions (§92.1)

New definitions include agricultural process wastewater and vegetated buffer, both identical to Chapter 91.1. In addition, setback is defined as "A specified distance from the top of the bank of surface waters, or potential conduits to surface waters, where manure and agricultural process wastewater may not be land applied. Examples of conduits to surface waters include, but are not limited to: (i) Open tile line intake structures, (ii) Sinkholes, and (iii) Agricultural wellheads."

Implementation: Regarding "potential conduits to surface waters," in addition to the three examples given, DEP intends to include non-vegetated channels with defined bed and bank that clearly outlet into surface water. DEP does not generally expect that any

other conduits will apply. It is important to note that this definition of setback is only applicable to lands owned and/or rented by the permittee that are included in the permit.

Setbacks and vegetated buffers are to be identified in the NMP or nutrient balance sheet. The difference between the scope of setbacks/buffers at CAFOs and setbacks/buffers at CAFO importer sites is described above.

Determining setbacks and buffers is not an office exercise. DEP expects that planners will visit all fields anticipated for manure application, not only on the CAFO, but also at any farm importing manure from the CAFO. DEP staff may also visit the farm to evaluate setbacks and buffers during the permit application review.

Buffer and setback areas can continue to be used for crop production and pasturing animals. Under the setback option, nutrients, if needed, will have to be provided by sources other than mechanically applied manure. Pasturing in the setback areas is to be done under a managed system that minimizes stream and stream bank damage and avoids over-grazing of the vegetative cover, under the Chapter 83 program.

If buffer areas are used for crop production or pasturing animals, the farming practices implemented in those areas must meet appropriate specifications and criteria depending on the intended use of the area, under the Chapter 83 program. Under the buffer option, management plans are used for crop and pasture uses in these areas to assure that the buffer's design capacity to remove sediments and nutrients is maintained. Buffer areas are managed in such a way as to control invasive and noxious plant species.

C. Application Deadlines for Newly Regulated Operations (§92.5a(b), (d))

Dry poultry CAFO operations with more than 500 AEUs were required to apply for an NPDES permit by April 24, 2006. Dry poultry CAFO operations with less than 500 AEUs must apply by January 22, 2007. Other newly regulated CAFO operations, such as horses, or other existing operations that exceed one of the federal threshold numbers, were required to apply by April 24, 2006.

Implementation: DEP expected these **newly regulated** CAFOs to submit their current NMP with their Notice of Intent (NOI) or individual permit application. Unless they have been developed in recent months, these plans will not meet DEP's new regulations, which require setbacks and buffers and phosphorus-based plans.

For newly regulated facilities, coverage under the general permit or issuance of an individual permit will not be authorized until <u>all</u> permit application requirements have been met, including, but not limited to, an updated NMP that has buffer/setback and phosphorus based planning, as well as an agricultural erosion and sediment (E&S) control plan.

D. New CAFOs (§92.5a(c))

New operations and existing operations that will become CAFOs due to changes in their operations must apply for an NPDES permit at least 180 days prior to the anticipated populating of the facility with animals or adding animals or reducing the

available land at the operation, and must obtain the permit prior to actual populating of the facility with animals or adding animals or reducing the available land at the operation. New CAFOs, and existing operations that will become CAFOs, must meet the new NMP requirements when they apply for permit/coverage.

Implementation: Self-explanatory.

E. Permit Application/NOI Requirements (§92.5a(e))

CAFO permit applications (including NOIs) must include (1) an NMP for the CAFO which satisfies Chapter 83 and which contains setbacks/buffers for the CAFO and a statement that manure that is stockpiled on-site at the CAFO for 15 days or more will be covered or stored to prevent discharges at the design storm event, (2) an E&S control plan for the CAFO which meets §102.4, and (3) a preparedness, prevention, and contingency (PPC) plan. Applications must also address how discharges will be prevented from the storage of raw materials such as feed and any applicable wastewater treatment systems such as those for alternative manure utilization systems.

Implementation: The Chapter 83 regulations have been revised (see the June 3, 2006 *Pennsylvania Bulletin*). The SCC is allowing existing CAOs to continue with their current plan until their first three-year review after October 1, 2006. During this review, the plans must be updated to meet the requirements in the revised Chapter 83 regulations.

DEP will allow a somewhat similar transition period for existing CAFOs to meet both the new Chapters 83 and 92 requirements. For CAFOs that were already under a CAFO permit when the revised Chapter 83 regulations became effective on October 1, 2006, the current NMP remains acceptable until the earliest of these three events occurs:

(1) the expiration date is reached for the permit or permit coverage;
(2) the Act 38 NMP comes up for its three-year review; or
(3) there is a change to the operation that requires an amendment to the NMP.

When one of these events occurs, the NMP must be updated to comply with the new regulations and a new NOI for Coverage or Application for an Individual Permit must be submitted to DEP. Once the NMPs for these operations have been updated and incorporated into the CAFO permit, subsequent amendments to the permits will follow the policy outlined in Provision IV.C.

Under the new Chapter 83 regulations, new or amended plans accepted as complete by the SCC or conservation districts on or after October 1, 2006, must meet the revised Chapter 83 regulations. Plans developed or amended since May 2004 must be phosphorus-based, based on SCC policy. And, under the revisions to Chapter 91 described above, although plans may not require revision, all CAFOs and their import sites must implement the ACRE setback or buffer requirement beginning January 1, 2006.

DEP expects that E&S/Conservation Plans will be submitted for all lands owned and/or rented by the permittee in all cases. For each of the importing farms that is located in EV, HQ and impaired watershed, DEP will accept either a copy of the E&S/Conservation

Plan or a written verification from the appropriate conservation district that a current E&S/Conservation Plan exists for the operation. The SCC will revise the NMP format to require the watershed designation/classification for all farms importing CAFO manure.

Raw material storage includes stockpiles of silage and other feed materials including food waste piles used to feed livestock. DEP expects a demonstration as part of the application (for new and existing facilities) that leachate will not enter surface waters at conditions less than the design storm event (25-year 24-hour storm). Note that DEP regulations specifically require that existing uses of surface waters must be maintained and protected, which may require additional precautions in certain circumstances.

Raw material plans should include a system to handle all of the highly concentrated liquids created by the fermentation process, as well as any rainwater or groundwater that comes into contact with the feed. Highly concentrated low flows should be collected and sent to storage for dilution and land spreading. Less concentrated high flows from runoff events need to be directed to a suitably designed filter area where they would be distributed as sheet flow. Proper siting and management of silage bunkers can go a long way to minimize the extent and cost of a leachate system. Sites should be chosen where groundwater and surface water will not contact the silage. A site far from surface water and with a large filter area located downslope would be preferable. Important management practices would include: loading the bunker when the moisture content of the silage is minimal, ensuring that rainwater coming off the cover does not enter the bunker, and thorough cleaning of areas of the concrete pad that become exposed as feed is removed from the bunker.

III. General and Individual NPDES CAFO Permit Application/NOI Guidance

A. Definition of a CAFO

Pennsylvania has integrated the Act 38 program into the CAFO program and has adopted the Act 38 definition of "agricultural operation" to identify what is a CAFO. This definition is not specific with respect to the factors to be considered in determining whether to aggregate farms into a single "agricultural operation." DEP will make such determinations on a case-by-case basis. Some of the factors that are considered include: common management of manure, common ownership and management control, and the relative proximity of the agricultural activities.

B. Requirement to Submit NMP for Individual Permits and General Permits

The application/NOI is incomplete without it and we cannot issue the permit. An incompleteness letter will be sent if the NMP for all lands owned and/or rented by the permittee is not included with the application. The NMP must also include copies of nutrient balance sheets and/or NMPs for importing operations.

C. CAFO NMP Coordination Between DEP Permitting Staff and the Conservation District

Plan reviewers have been directed to confer with the DEP regions when reviewing NMPs for CAFOs. This collaboration is expected to incorporate CAFO-specific nutrient

management planning requirements, such as setbacks/buffers and manure stacking timeframes, into the Act 38 NMP, and may include raw material storage.

In the event that an approved NMP is submitted to DEP that requires additional BMPs, the NMP will be sent back to the plan reviewer for a plan amendment prior to issuance of the CAFO permit. Only if the plan is not amended will additional nutrient management related special conditions be added to the CAFO permit, pursuant to the CAFO regulations. (Note that in the case of an applicant who would otherwise be eligible for coverage under the general permit, this would require conversion to an individual permit, since special conditions cannot be inserted in the general permit.) The SCC will publish receipt of CAFO NMPs and approval of CAFO NMPs in the *Pennsylvania Bulletin,* based upon information that will be provided by the appropriate conservation district.

D. Public Notice Procedure

DEP will publish in the *Pennsylvania Bulletin* all permits, applications, and NOIs on receipt and when a final determination is made. Newspaper and Act 14 notice will be required for new and expanded operations. Acts 67 and 68 land use reviews will also be required for new CAFOs that require an Individual Permit. (See Appendix A.) The SCC will publish receipt and final action of NMPs for CAFOs in the *Pennsylvania Bulletin*. (See Appendix A.)

E. Submission Requirements Regarding E&S Plans for Plowing and Tilling

E&S/Conservation Plans must be submitted for the lands owned and/or rented by the permittee, which are included in the CAFO permit. Also, DEP expects to receive either a copy of the plan or a certification from the appropriate conservation district that a current conservation plan exists for all of the CAFO's importing farms located in EV, HQ, and impaired watersheds. The standard NMP format will be revised (for CAFO NMPs) to require the watershed designation/classification for all importing farms.

F. Submission Requirements for CAFO With Liquid/Semi-Solid Manure Storage Facility

Constructed after January 29, 2000: Any CAFO (regardless of number of AEUs) with a manure storage facility constructed after January 29, 2000, containing liquid or semi-solid manure must submit a PE certification or copy of a previously submitted PE certification for design and construction as part of the NOI/permit application. Where a manure storage facility built after January 29, 2000, does not have a PE certification for design and construction, the Regional Office can resolve these matters by obtaining a PE certification of structural integrity and, where appropriate, assessing a civil penalty. Note: the new Chapter 83 regulations will not allow for NMP approval without a PE certification for these facilities. (See Appendix B.)

Constructed before January 29, 2000: Any CAFO with more than 1,000 AEUs that has a manure storage facility constructed before 2000 must submit a PE certification for structural integrity. The DEP form "Engineer Certification Report for Existing Manure Storage Facilities" can be used. In addition, any CAFO with more than 1,000 AEUs that has a manure storage facility containing liquid or semi-solid manure must submit a PE

certification for structural integrity every five years (usually as part of the CAFO permit renewal). (See Appendix B.)

For both of the cases cited above, the intent is that an engineer will conduct a visual inspection as well as a review of the history of the structure of the structure/pond (design and as-built drawings, maintenance records, past discharges, etc.) to assess the structural integrity. Engineers will not ordinarily be expected to certify water-tightness of a facility. In the event that the visual inspection reveals deficiencies, the development of a corrective action plan may identify the need for more detailed testing and analysis of the facility. Similarly, if DEP finds deficiencies during a CAFO inspection, the operator may need to hire an engineer to follow up with a more detailed assessment.

Any CAFO that has a manure storage facility where evidence of concern exists will usually be asked to submit an acceptable corrective action plan. Evidence of concern includes obvious leaks, discolored seepage, discolored discharge from the leak detection systems, or improper maintenance.

G. Photographs

Photographs are not required, but it is very helpful to include photographs of existing CAFOs with NPDES permit applications. Ideally, photographs should be taken of all facilities and a narrative description included.

IV. Other CAFO and Water Quality Management Permit Guidance

A. Site Investigations

When evaluating locations for manure storage facilities, barns, and other structures, the engineer should examine the "Open File Reports" available through the PA Geological Survey for the presence of known hazardous geologic features. Those features, if present, should be transferred to a site layout plan. It is noted that even if setbacks from hazardous geology are provided, if DEP determines that there is a significant risk to public health or the environment, a detailed subsurface investigation may be required. Examples of such risks include sinkholes or mine subsidence observed at the proposed site of the facility.

B. Pre-Application Site Meetings

DEP encourages CAFO applicants and their consultants to arrange for a pre-application meeting whenever a new or expanded CAFO is proposed. Such meetings allow for a more thorough understanding of the facility on the part of DEP staff, and may expedite the review period in some cases.

C. CAFO Permit Amendments

CAFO permit amendments are required when any proposed activity would trigger an amendment or modification to the NMP, per Chapter 83. For example, a 10% increase in the AEUs per acre value for the operation would trigger the need to amend the NMP and apply for an NPDES permit amendment or submit an NOI for General Permit coverage.

DEP encourages permittees to contact our staff well in advance of any proposed modifications to the operation. DEP recommends that copies of plan updates be submitted that outline the operation's changes, so that a record can be placed in the permit's NMP.

D. Manure Treatment Facilities

Proposals to treat manure through a biological or chemical process that results in a direct discharge to surface water will be included in the NMP and should be discussed with DEP in the planning stages. It is important to discuss potential projects in advance before significant investments are made. DEP encourages alternative manure utilization approaches and will seek to expedite the approval process by including numeric effluent limits and other conditions related to the facility in the CAFO permit.

E. Post-Construction Certification Reports

Any time new or expanded manure storage facilities (including pump reception pits, shallow pit facilities, etc.) are constructed at a CAFO, DEP requests that the engineer's post-construction certification report be submitted for the file – regardless of whether a WQM permit was issued for the project or not. Post-construction certifications are not necessary for gravity conveyance systems.

F. Manure Storage Facilities Expansions That Trigger WQM Permit Requirement

When an agricultural operation (CAFO or non-CAFO) expands the manure storage facility such that it exceeds the regulatory threshold for a WQM permit, the permit application shall be required to include a PE's structural integrity certification report for any existing unit of the manure storage facility at the operation. For any existing unit that was constructed after January 29, 2000, the owner or operator is also required to provide the post-construction engineering certification that the facility was constructed in accordance with NRCS standards.

The standard certification form does not specifically require that the engineer certify that the units meet NRCS standards, but rather that they are structurally sound. Nonetheless, in certifying structures that were constructed in 2000 or later, the engineer must consider conformance to NRCS standards as part of the certification.

Engineering reviews of existing structures should involve a full inspection of the interior of pits, tanks, and ponds to check for cracks, seeps, tears, etc. to the maximum extent possible. Therefore, inspections should be coordinated with the farm to take place during periods when facilities are as empty as possible. For underbarn storage facilities, DEP recognizes that these inspections are difficult and potentially dangerous. A workgroup has been established to develop a protocol for such inspections. Permits may include requirements for corrective action or maintenance activities for manure storage units.

APPENDIX A
Public Participation Requirements for CAFO NPDES and WQM Permit Applications

Documentation Type [1]	General NPDES Permits			Individual NPDES Permits [2]			WQM Permits [3]
	New or Expanded Operation	Existing Operation, First Permit	Existing Operation, Permit Renewals	New or Expanded Operation	Existing Operation, First Permit	Existing Operation, Permit Renewals	
Act 14 Notifications With Proof of Receipt	√	√		√	√	√	√
Acts 67/68 Land Use Questionnaire [4]				√			√
Newspaper Publication (4 Consecutive Weeks)	√			√			√
Pennsylvania Bulletin Notice – Application Receipt	√	√	√				√
Pennsylvania Bulletin Notice – Draft Permit				√	√	√	
Pennsylvania Bulletin Notice – Final Action	√	√	√	√	√	√	√
Public Hearing or Meeting	*May be held at the public's request for any application and is required by policy for new CAFOs in EV watersheds*						

(1) The permittee is responsible for Act 14 Notifications, Land Use Questionnaire, and Newspaper Publication. DEP is responsible for *Pennsylvania Bulletin* Notices and Public Hearings or Meetings.

(2) EPA does not waive review of individual CAFO permits. EPA must receive a copy of the application, supporting documentation, "fact sheet" and draft permit. EPA has 45 days to comment on draft permits unless it requests a full 90-day review period. *Pennsylvania Bulletin* Notices MUST appear in the "New, Expanded, and Non-Waived" section of the publication in descriptive format (not table format).

(3) If DEP determines that rehabilitation of an existing manure storage facility warrants submission of a WQM Permit application, Act 14 Notifications are required, but the permittee does not need to complete the Land Use Questionnaire or the Newspaper Publication. DEP will issue *Pennsylvania Bulletin* Notices upon receipt and after making a final decision.

(4) The Land Use Questionnaire is contained within the General Information Form (GIF). The Questionnaire should be completed and sent to the municipality where the project is located for the permits identified in the table. Proof of receipt is required.

APPENDIX B
PE Certification and Permit Requirements for Liquid and Semi-Solid Manure Storage Facilities [1]

Manure Storage Facilities

Farm Type	Facility Type	PE Certification Requirements	WQM Permit Requirements
Farms > 1,000 AEUs,	All, built after 1/29/2000	PE must design and certify conformance to plans for WQM Permit (Post-Construction Certification)	WQM Permit required prior to construction
All Farms having ➔	Facility ≥ 2.5 mil. Gal.; or Pond with 1 to 2.5 mil. Gal. if in HQ/EV or Ag-Impaired Watershed [2], built after 10/22/2005		
Farms < 1,000 AEUs	All, except those identified immediately above	PE must design and certify conformance to NRCS standards (Post-Construction Certification)	WQM Permit required only where design does not conform to NRCS standards

CAFO NPDES Permit Application Requirements

Farm Type	Facility Type	NPDES Permit Application Requirements
CAFOs < 1,000 AEUs	All	PE Post-Construction Certification for facilities constructed after January 29, 2000 A Corrective Action Plan may be required on a site-specific basis [3]
CAFOs > 1,000 AEUs	All	PE Post-Construction Certification for facilities constructed after January 29, 2000 PE Certification of Structural Integrity for facilities constructed before January 29, 2000 A Corrective Action Plan may be required on a site-specific basis [3]

(1) Manure storage facility is defined in Chapter 91.1 as "a permanent structure or pond, a portion of a structure or pond, or a group of structures or ponds at one agricultural operation, utilized for the purpose of containing manure or agricultural process wastewater. This includes concrete, metal or other fabricated tanks and underbuilding structures, as well as earthen and synthetically-lined manure storage ponds." Runoff collection impoundments and shallow pit concrete structures that are operated as a "pull-plug" system are considered to be part of the manure storage facility.

(2) The volume thresholds include the effective storage capacity (total storage capacity minus required freeboard) of all storage components at the operation. For example, if the operation has 2 million gallons of existing effective storage capacity and proposes a new 0.5 million-gallon tank, the tank will require a permit prior to construction. "Ag-Impaired Watershed" means the nearest downstream waters to the proposed manure storage pond that is reported on the §303(d) list to be impaired due to nutrients related to agricultural activities.

(3) Operators of manure storage facilities are expected to follow the Operation and Maintenance Plan developed under the NRCS conservation practice standard. A Corrective Action Plan (CAP) may be required for any operation if DEP has reason to believe that the manure storage facility is currently causing pollution to waters of the Commonwealth. A PE would not be required to prepare the CAP unless DEP requires a WQM Permit for rehabilitation of the facility.