

PROPOSED RULEMAKING

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CHS. 91 AND 92]

Concentrated Animal Feeding Operations and Other Agricultural Operations

The Environmental Quality Board (Board) proposes to amend §§ 91.1, 91.35, 91.36, 92.1 and 92.5a. This proposed rulemaking conforms current Department of Environmental Protection (Department) regulations to the revised Federal regulations for concentrated animal feeding operations (CAFOs). The proposed rulemaking also makes some substantive and organizational changes to existing regulations regarding agricultural operations in this Commonwealth.

This proposed rulemaking was adopted by the Board at its meeting on April 20, 2004.

A. Effective Date

The proposed rulemaking will go into effect upon final-from publication in the *Pennsylvania Bulletin*.

B. Contact Persons

For further information, contact Cedric Karper, Chief, Division of Conservation Districts and Nutrient Management, Bureau of Watershed Management, Rachel Carson State Office Building, P. O. Box 8465, Harrisburg, PA 17105-8465, (717) 783-7577; or Douglas Brennan, Assistant Counsel, Bureau of Regulatory Counsel, Rachel Carson State Office Building, 400 Market Street, Harrisburg, PA 17101-2301, (717) 787-9373. Information regarding submitting comments on this proposed rulemaking appears in Section I of this preamble. Persons with a disability may use the AT&T Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposed rulemaking is available on the Department's website: www.dep.state.pa.us.

C. Statutory Authority

The proposed rulemaking is being made under the authority of sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402) and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

D. Background and Purpose

The primary purpose of the proposed rulemaking is to allow the Commonwealth to maintain delegation of the National Pollutant Discharge Elimination System (NPDES) CAFO program, which was revised by the Federal government in 2003. The proposed rulemaking is also intended to implement a regulatory program for livestock operations that reasonably controls the risk to the environment in a sustainable way, with due regard for the economic importance of the industry and other societal benefits, using the input from important stakeholders and relying as much as possible on the existing successful CAFO program. The proposed rulemaking also strengthens existing requirements in key areas and codifies The Clean Streams Law requirement that smaller agricultural operations protect the quality of this Commonwealth's waters.

The proposed rulemaking is directly related to and an integral part of Governor Rendell's directive that was

issued with his veto of HB 1222. This directive includes development of a comprehensive, progressive plan to address municipal ordinances enacted in conflict with the act of June 10, 1982 (P. L. 454, No. 133) (3 P. S. §§ 951—957), known as the Right-to-Farm Law, and Nutrient Management Act (3 P. S. §§ 1701—1718) and the concerns over animal feeding operations that are driving these ordinances. As a result of that directive, the definition of "CAFO" was expanded in this proposed rulemaking to include all operations defined by Federal regulations as large CAFOs and a stream buffer/manure application setback provision was added in Chapter 91 (relating to general provisions). The proposed rulemaking also includes specific setback and buffer requirements for CAFOs. The expanded coverage of the CAFO permitting program and provisions for buffers/setbacks respond to local concerns behind municipal ordinances. A special request for public comment on the buffer/setback provisions is included in this publication. This public input will be considered in finalizing the rulemaking and in shaping the comprehensive, progressive plan requested in the directive.

The most recent (2002) Pennsylvania report on the quality of surface waters listed agriculture as the second leading cause of impairment. Improper management of nutrients such as manure and fertilizers, as well as lack of stormwater runoff controls, are the primary contributing factors to these water quality problems around this Commonwealth. Livestock operations, including large-scale operations whose animals generate large amounts of manure, present risks of water pollution. In addition, many of this Commonwealth's agricultural operations are in the Chesapeake Bay watershed. This requires a special focus on best management practices to protect and restore that important resource.

At the same time, agriculture is an important industry in this Commonwealth, providing livelihood for thousands of citizens and their families. In addition, agricultural lands provide significant aesthetic and environmental benefits to this Commonwealth. Finally, agriculture is an important part of the cultural fabric of this Commonwealth.

To address the environmental risks posed by large-scale livestock operations, the United States Environmental Protection Agency (EPA) promulgated a comprehensive set of revised regulations governing CAFOs in February 2003. These regulations greatly expand existing Federal rules put in place over 20 years ago, to strengthen the existing regulatory program for CAFOs. The regulations revise 40 CFR Parts 122 and 412.

The Department already has in place NPDES permit regulations for CAFOs in § 92.5a (relating to CAFOs). These regulations were previously approved by the EPA as part of a delegation agreement to administer the Federal program in this Commonwealth. To maintain delegation of the Federal program, the Department must demonstrate that its regulations meet the new Federal requirements. In the case of the Commonwealth, the existing CAFO regulations, along with Chapter 83, Subchapter D (relating to nutrient management) promulgated by the State Conservation Commission (Commission), Chapter 91 and Chapter 102 (relating to erosion and sediment control), already contain many of the new Federal requirements. These regulations have been in place for several years and have achieved wide acceptance

in the agricultural community as well as various stakeholders such as Department regional offices, the Department of Agriculture, the Commission, the Nutrient Management Advisory Board and the county conservation districts.

To develop the proposed rulemaking revising the current CAFO program, the Department created a CAFO Stakeholder Group (Group) in early 2003 to obtain advice from the various interested sectors of this Commonwealth—government, industry, environmental and academia—similar to the group convened in 1999 when the initial CAFO regulations were developed. The Group met six times between March and November 2003 to assist the Department in developing the proposed rulemaking. Much of the content of the proposed rulemaking reflects input from the Group.

During the Group meetings, water quality problems associated with this Commonwealth's numerous smaller livestock operations were identified. A variety of strategies were presented and discussed. Proposed § 91.36(c) (relating to pollution control and prevention at agricultural operations) emphasizes the responsibility of all agricultural operations to prevent the discharge of pollutants to waters of this Commonwealth under The Clean Streams Law. In addition, the proposed rulemaking extends the requirement for permits for manure storage to smaller operations to minimize the risk of impacts to water resources.

The Department has also sought the advice of the Agricultural Advisory Board in developing this proposed rulemaking. However, the Agricultural Advisory Board took no position and decided not to submit formal comments on the version reviewed by the Agricultural Advisory Board.

Summary of Regulatory Requirements

The regulatory scheme for agricultural operations contains several levels of requirements, which increase in stringency as the risk of impacts to water resources increases. The proposed rulemaking makes changes at several of those levels, and is being proposed concurrently with a proposed rulemaking by the Commission under Chapter 83 (relating to State Conservation Commission), which affect both CAFOs and other agricultural operations.

1. *CAFOs.* The main focus of this proposed rulemaking is CAFOs, the largest livestock operations in this Commonwealth. The basic requirement for CAFOs will continue to be to obtain a permit under the Department's program implementing the NPDES Program. The NPDES permit has several fundamental requirements, some of which are new or which contain new elements to conform to the new Federal requirements. These requirements, with the corresponding applicable regulation or law, are:

- Proper construction and operation of manure storage facilities (§ 91.36(a)).
- An erosion and sediment control plan for plowing and tilling (Chapter 102).
- A nutrient management plan (NMP) addressing stormwater runoff around the farmstead and application of nutrients on croplands (Chapter 83, Subchapter D).
- A preparedness, prevention and contingency (PPC) plan for chemicals (§ 92.5a(4)).
- Implementation of management controls on the export of manure away from the CAFO (Chapter 83, Subchapter D).

- Compliance with 3 Pa.C.S. §§ 2301—2389 (relating to the Domestic Animal Law) when handling animal mortality.

a. *Manure Management.* First, agricultural operations in this Commonwealth, including CAFOs, must meet construction and operation requirements for manure storage and management. These broad-based requirements are currently described in § 91.35 (relating to wastewater impoundments) and § 91.36, which are administered by the Department. The proposed rulemaking consolidates them into one section, § 91.36. CAFOs, which have large manure storage facilities, have special permitting requirements above and beyond those of most other livestock operations, and this proposed rulemaking preserves that extra protection. For poultry operations, these protections are increased in the proposed rulemaking, consistent with the revised Federal CAFO regulations.

b. *Conservation Practices.* Second, all agricultural operations that conduct plowing and tilling must develop and implement an erosion and sediment control plan to limit runoff, under Chapter 102, also administered by the Department. This applies to CAFOs. These plans are important to the prevention of surface water pollution by phosphorus from manure and other nutrients applied to the land as fertilizer. The proposed rulemaking specifies that the conservation practices must meet setback and buffer requirements approved by the Department.

c. *Nutrient Management.* Third, the approximately 800 "concentrated animal operations" (many of which are also CAFOs) regulated under Chapter 83 based on their concentration of animals (as opposed to their absolute numbers of animals) must meet a series of requirements related to nutrient management. These requirements include testing of soils and manure for nitrogen and phosphorus, determination of agronomic needs of the crops based on nitrogen, land application of manure based on those tests and on crop needs and stormwater runoff controls around the farmstead. These requirements, including the need to have a NMP approved by the local county conservation district, are also imposed on CAFOs under the existing and proposed regulations. The NMPs are subject to appeal to the Environmental Hearing Board.

Chapter 83 is promulgated by the Commission and is administered primarily through county conservation districts. Chapter 83 is currently undergoing sweeping revisions in a timeframe similar to this proposed rulemaking. (*Editor's Note:* For the document relating to these revisions see 34 Pa.B. 4361 (August 7, 2004).

The proposed amendments to Chapter 83 include new, additional requirements for addressing the impacts on water quality from phosphorus (in addition to nitrogen) and more frequent soil and manure testing for nitrogen and phosphorus. They also propose to significantly increase the regulation of the export of manure. These amendments are relevant to CAFOs because § 92.5a requires CAFOs to have an NMP under Chapter 83.

d. *Federal CAFO Requirements.* Finally, Chapter 92 (relating to National Pollutant Discharge Elimination System permitting, monitoring and compliance) contains the Department's NPDES regulations and § 92.5a governs CAFOs. Section 92.5a incorporates the other requirements already applicable to agricultural operations found in Chapters 83, 91 and 102 and adds special requirements for CAFOs within the Department's NPDES permit program. The proposed rulemaking makes several

changes to § 92.5a, as well as the related definitions in § 92.1 (relating to definitions), to conform to the new EPA CAFO regulations:

- A revised definition of “CAFO” to expand the scope of these regulations.
- A new definition of “livestock” to include horses.
- A timetable for poultry operations with dry manure to apply for NPDES CAFO permits.
- Setback requirements from water bodies for land application of manure.
- Recordkeeping and reporting requirements that are identified in the NPDES permit and also in the Department’s implementation strategy to be published later in 2004.
- A PPC plan for chemicals.
- Implementation of management controls on the export of manure away from the CAFO.
- Compliance with 3 Pa.C.S. §§ 2301—2389 when handling animal mortality.

The Board seeks comments in particular on two aspects of these amendments:

i. *Definition of a “CAFO.”* The Board proposes to amend the definition of a “CAFO” to alter the way in which a discharge to surface waters from the operation would trigger the CAFO requirements. The existing regulations consider any agricultural operation, no matter how small, to be a CAFO if it has a discharge to surface waters. The proposed rulemaking eliminates that threshold. This proposed amendment is based on the focus of the CAFO regulations: large animal operations. For the most part, these regulations do not allow discharges. Smaller operations that have discharges are subject to other, more basic requirements and prohibitions under The Clean Streams Law. The Board believes that the CAFO program should keep its focus on permitting (and monitoring) larger operations. The proposed rulemaking adds new language highlighting The Clean Streams Law general prohibitions against unpermitted discharges to surface waters.

In addition, the Board proposes to add a category of operations that will be a CAFO—operations designated as

large CAFOs by the EPA. The purpose of this provision is to satisfy the new Federal definition of a CAFO, which does not use the Pennsylvania approach of “animal equivalent units.”

Further, the Board proposes language that gives it the flexibility to include any agricultural operation that requires closer scrutiny under a permit based on certain risk factors.

Finally, the proposed rulemaking allows discharges designed to meet specified effluent limitations. This provision will encourage technologies that use manure for energy production. Some of these technologies include a treated wastewater discharge and, with this provision, can be covered under the CAFO rather than the more complex NPDES industrial waste permitting process. Public comment is specifically requested on other options that could be employed to further encourage use of manure for energy production.

ii. *Setback requirements.* The Board proposes to adopt new provisions to require manure land application setbacks as stated in the new EPA CAFO regulations—100 feet setback or 35 feet of vegetated buffer. However, the Board is soliciting comments on another option under consideration. Under that option, the setback requirement would refer solely to current setbacks allowed by the “Pennsylvania Technical Guide.” The “Pennsylvania Technical Guide,” published by the United States Department of Agriculture, Natural Resources Conservation Service (NRCS), is an integral part of the regulatory scheme in this Commonwealth. It contains design standards developed by the NRCS, with the assistance of cooperating agencies such as the Department, other State and Federal agencies, farm organizations and environmental groups. The current design standard for a vegetated buffer is 50 feet, which is more stringent than the Federal CAFO regulations. However, alternative buffer designs may be developed after scientific evaluation by the NRCS, review by cooperating agencies and approved by the State conservationist.

The following table summarizes the requirements in the Federal regulations and the associated Pennsylvania regulations that will satisfy those requirements if this proposed rulemaking is finalized:

<i>Issue</i>	<i>EPA—New Rule</i>	<i>Department/Commission Proposed Amendments</i>
CAFO definition	§§ 122.23(b)(4) and (6)	§ 92.1
NMP	§§ 122.42(e)(1) and 412.4(c)(1)	§ 92.5a(e)(1) and Chapter 83
—Manure storage	§ 122.42(e)(1)(i)	§§ 91.36(a) and 92.5a(e)(4)
—Dead animals	§§ 122.42(e)(1)(ii) and 412.37(a)(4)	§ 92.5a(e)(3)
—Stormwater management	§ 122.42(e)(1)(iii)	§ 92.5a(e)(1) and Chapter 83
—Animal contact with waters of the United States	§ 122.42(e)(1)(iv)	§ 92.5a(e)(1) and Chapter 83
—Chemical handling	§ 122.42(e)(1)(v)	§ 92.5a(e)(1)
—Conservation practices	§ 122.42(e)(1)(vi)	§ 92.5a(e)(1) and Chapters 83 and 102
—Testing of manure and soil	§§ 122.42(e)(1)(vii) and 412.4(c)(3)	§ 92.5a(e)(1) and Chapter 83
—Land application protocols	§§ 122.42(e)(1)(viii) and 412(c)(2)	§ 92.5a(e)(1) and Chapter 83
—Recordkeeping for NMP	§§ 122.42(e)(1)(ix) and (e)(2) and 412.37(b) and (c)	§ 92.5a(e)(5)
Manure transfer (export)	§ 122.42(e)(3)	§ 92.5a(d)(1) and (e)(1) and Chapter 83
Annual report	§ 122.42(e)(4)	§ 92.5a(e)(5)
Nitrogen and Phosphorus	§ 412.4(c)(1)	§ 92.5a(e)(1) and Chapter 83

<i>Issue</i>	<i>EPA—New Rule</i>	<i>Department/Commission Proposed Amendments</i>
Maintenance of land application equipment	§ 412.4(c)(4)	§ 92.5a(e)(1) and Chapter 83
Setback requirements	§ 412.4(c)(5)	§ 92.5a(d)(1)
Discharge prohibition from production areas	§ 412	§§ 91.36(a)(4) and 92.5a(e)(4)
Voluntary alternative performance standard	§ 412.31(a)(2)	§ 92.1
Visual inspections of production area	§ 412.37(a)(1) and (3)	§ 92.5a(e)(1) and Chapter 83
Depth markers	§ 412.37(a)(2)	§§ 91.36(a) and 92.5a(e)(4)

3. *Other agricultural operations.* The Group that assisted the Department in the development of this proposed rulemaking identified smaller livestock operations as causing a substantial portion of pollution problems created by agriculture. To address this, the proposed amendments to § 91.36(c) emphasize the responsibility of all agricultural operations to prevent the discharge of pollutants to waters of this Commonwealth under The Clean Streams Law. In addition, the proposed amendments in § 91.36(a)(3) and (7) require permits for liquid or semisolid manure storage at smaller operations than currently permitted to minimize the risk of impacts to water resources. Section 91.36(a)(3) establishes specific size, type and location criteria for new and expanded manure storage facilities. Section 91.36(a)(7) sets the general criteria for other facilities. These facilities would be evaluated on a case-by-case basis, taking site-specific conditions into consideration, such as the proximity to special protection waters or impaired waters, and considering the risk of pollution based on various factors such as the type of geology, the type of storage structure and the size of the structure. Department staff would perform this evaluation.

Finally, the Board is proposing to add § 91.36(b)(2), which establishes Statewide setback and buffer requirements. The Board seeks comments on this requirement, and in particular on the appropriate standard for water quality protection. As a starting point, the Department's current Manure Management Manual recommends setbacks consistent with the Commission's nutrient management regulations. These primarily involve proximity to environmentally sensitive areas such as drinking water sources, and, during times of frozen, saturated or snow covered ground, from streams, lakes, ponds and other surface water conveyances. In addition, proposed § 92.5a(d)(1) requires setbacks or buffers for CAFOs that would be consistent with the Federal rule: 100 foot setback from surface water (throughout the year) or a 35-foot wide vegetated buffer, in addition to the requirements of the nutrient management regulations. The Board seeks comments on whether and to what extent either of these setback and buffer standards, or others, would be appropriate for all agricultural operations Statewide.

E. Benefits, Costs and Compliance Benefits

Human health and the environment will benefit because agricultural operations, including CAFOs, will be required to effectively manage the manure that they produce. The largest and most concentrated operations are targeted under the CAFO program. The Department estimates that there will be a total of 350 CAFOs in this

Commonwealth, as defined under this proposed rulemaking (there are approximately 160 now), mostly in the central parts of this Commonwealth. The population of the Susquehanna River Basin, in particular, will benefit from enhanced water quality and associated economic and recreational benefits. The proposed rulemaking will also complement the Commonwealth's efforts to meet its commitments to the Chesapeake Bay Program and will help to address agricultural nonpoint sources of pollution that are among the most significant sources of water quality impairment in this Commonwealth. The CAFO permitting process will also help farmers critically assess the costs and benefits of developing CAFOs before they make substantial financial commitments.

Compliance Costs

There will be compliance costs for some agricultural operations around this Commonwealth, especially existing poultry producers that will be newly regulated as CAFOs, new or expanded operations which will be CAFOs and some agricultural operations with manure storage capacity greater than 1 million gallons.

The approximately 190 operations that are expected to be directly affected by the new CAFO regulations should not be surprised by the changes. The EPA began soliciting comments on the proposed Federal rule changes about 3 years ago. Fact sheets, reports and the Federal AFO/CAFO Strategy were widely circulated to both government and industry for review and comment. The large poultry and swine integrators have been expecting these changes. In addition, Department staff have met with the poultry and swine representatives during the development of the proposed rulemaking. The technical capacity in the private sector for preparing the permit applications exists, although the timeline established by the Department in § 92.5a(c) will dictate the burden placed on these resources.

The Department does not have detailed information on the anticipated CAFO compliance costs in this Commonwealth. Using information from the EPA on the average costs of obtaining an NPDES CAFO permit, costs are estimated to be no more than the following:

- Existing operation, general permit: \$1,000 to \$2,500.
- Existing operation, individual permit: \$1,500 to \$3,500.
- New or expanded operation: \$10,000 to \$15,000.

In addition to the costs for obtaining a CAFO permit, smaller CAFOs and some agricultural operations will incur expenses to obtain permits for large manure storage facilities. The Department estimates those costs to be up to \$1,500 to \$3,500 per storage facility.

Compliance Assistance Plan

To help these livestock operations meet the proposed rulemaking's requirements, Congress increased funding for land and water conservation programs in the 2002 Farm Bill by \$20.9 billion Nationwide, bringing total funding for these programs to \$51 billion over the next decade. The Environmental Quality Incentives Program (EQIP) was authorized at \$200 million in 2002 and will ultimately go up to \$1.3 billion in 2007; 60% of those funds must go to livestock operations. The Commonwealth's allocation is approximately \$8 to \$10 million annually. New technology is also being perfected to aid farmers in meeting the proposed rulemaking.

Several financial assistance programs are available to livestock producers in this Commonwealth. Federal grants, such as EQIP and the Conservation Reserve Enhancement Program are available. State cost share and grant programs such as the Chesapeake Bay Program, Growing Greener and the Nutrient Management Program grants and low interest loans through Agrilink are also available.

Additionally, compliance assistance efforts following the enactment of the new regulations will be in the form of education and outreach by the conservation districts, Penn State Extension and Department trainings and fact sheets.

Paperwork Requirements

The proposed rulemaking will cause no additional paperwork (for example, reporting forms, recordkeeping, application forms, letters, public notices, and the like) for existing CAFOs in this Commonwealth.

It should be noted that the Department has been actively endorsing electronic data reporting instead of conventional paper form reporting to water systems throughout this Commonwealth. If employed, electronic data reporting would greatly reduce a CAFO's current paperwork requirements.

G. Sunset Review

The proposed rulemaking will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulations effectively fulfill the goals for which they were intended.

H. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on July 28, 2004, the Department submitted a copy of this proposed rulemaking and a copy of a Regulatory Analysis Form to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the Senate and House Environmental Resources and Energy Committees. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed rulemaking within 30 days of the close of the public comment period. The comments, recommendations or objections shall specify the regulatory review criteria which have not been met. The Regulatory Review Act specifies detailed procedures for review, prior to final publication of the rulemaking, by the Depart-

ment, the General Assembly and the Governor of comments, recommendations or objections raised.

I. Public Comments

Written Comments—Interested persons are invited to submit comments, suggestions or objections regarding the proposed rulemaking to the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 15th Floor, 400 Market Street, Harrisburg, PA 17105-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Board by November 5, 2004. Interested persons may also submit a summary of their comments to the Board. The summary may not exceed one page in length and must also be received by November 5, 2004. The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final regulations will be considered.

Electronic Comments—Comments may be submitted by e-mail to the Board at RegComments@state.pa.us and must also be received by the Board by November 5, 2004. A subject heading of the proposed rulemaking and a return name and address must be included in each transmission. If an acknowledgement of electronic comments is not received by the sender within 2 working days, the comments should be retransmitted to ensure receipt.

J. Public Meetings and Hearings

The Department will hold two public informational meetings on this proposed rulemaking in conjunction with the meetings scheduled for the revised nutrient management regulations. The public informational meetings will be held at 6:30 p.m., September 13, 2004, at the Holiday Inn, 5401 Carlisle Pike, Mechanicsburg and at 6:30 p.m., September 16, 2004, at the Ramada Inn, 191 United Road, DuBois.

The Board will hold two public hearings coordinated with the revised nutrient management regulations. The hearings will be held at 7 p.m. on October 13, 2004, at the Holiday Inn, 5401 Carlisle Pike, Mechanicsburg and October 14, 2004, at the Ramada Inn, 191 United Road, DuBois.

Persons wishing to present testimony at a public hearing are requested to contact the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477, (717) 787-4526 at least 1 week in advance of the hearing to reserve a time to present testimony. Oral testimony is limited to 10 minutes for each witness. Witnesses are requested to submit three written copies of their oral testimony to the hearing chairperson at the hearing. Organizations are limited to designating one witness to present testimony on their behalf at each hearing.

Persons in need of accommodations as provided for in the American With Disabilities Act of 1990 should contact the Board at (717) 787-4526 or through the Pennsylvania AT&T Relay Service at (800) 654-5984 (TDD) to discuss how the Department may accommodate their needs.

KATHLEEN A. MCGINTY,
Chairperson

Fiscal Note: 7-391. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION
PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart C. PROTECTION OF NATURAL RESOURCES

ARTICLE II. WATER RESOURCES

CHAPTER 91. GENERAL PROVISIONS

GENERAL

§ 91.1. Definitions.

The definitions in section 1 of [the act of June 22, 1937 (P. L. 187, No. 394)] The Clean Streams Law (35 P. S. § 691.1) apply to this article. In addition, the following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

AEU—Animal equivalent unit—One thousand pounds live weight of livestock or poultry animals, regardless of the actual number of individual animals comprising the unit, as defined in section 3 of the Nutrient Management Act (3 P. S. § 1703).

* * * * *

[**Animal equivalent unit**—One thousand pounds live weight of livestock or poultry animals, regardless of the actual number of individual animals comprising the unit, as defined in section 3 of the Nutrient Management Act.]

* * * * *

Earthen waste storage pond—A manure storage facility with an earthen structure lined with clay, plastic, concrete or other material acceptable to the Department.

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Manure Management Manual—The guidance manual published by the Department that is entitled “Manure Management Manual for Environmental Protection,” including its supplements and amendments. The manual describes approved manure management practices for all agricultural operations as required by § 91.36. (relating to pollution control and prevention at agricultural operations).

Manure storage facility—A permanent structure or facility [or], a portion of a structure or facility, or a group of structures or facilities at one agricultural operation, utilized for the purpose of containing manure [as defined in § 83.201 (relating to definitions)].

* * * * *

Pennsylvania Technical Guide—

(i) The Pennsylvania Soil and Water Conservation Technical Guide, including supplements and amendments, which is the primary technical guide published by the Pennsylvania office of the Natural Resources Conservation Service of the U.S. Department of Agriculture.

(ii) The Guide contains technical information, including design criteria, about conservation of soil, water, air, plant and animal resources specific to Pennsylvania.

(iii) The Guide is also referred to as the Field Office Technical Guide in Federal regulations and other documents.

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Setback—A specified distance from surface waters or potential conduits to surface waters where manure, litter, and process wastewater may not be land applied.

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Vegetated buffer—A permanent strip 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.

Waste storage structure—A manure storage facility that is a fabricated structure for storage of animal wastes or other organic agricultural wastes that is not an earthen waste storage pond.

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MANAGEMENT OF OTHER WASTES

§ 91.35. Wastewater impoundments.

(a) Except as otherwise provided under subsections (c)—[(e)](d), a person may not operate, maintain or use or permit the operation, maintenance or use of a wastewater impoundment for the production, processing, storage, treatment or disposal of pollutants unless the wastewater impoundment is structurally sound, impermeable, protected from unauthorized acts of third parties, and is maintained so that a freeboard of at least 2 feet remains at all times. The person owning, operating or possessing a wastewater impoundment has the burden of satisfying the Department that the wastewater impoundment complies with these requirements.

* * * * *

(c) Except when a wastewater impoundment is already approved under an existing permit from the Department, a permit from the Department is required approving the location, construction, use, operation and maintenance of a wastewater impoundment subject to subsection (a) in the following cases:

* * * * *

(4) [If the impoundment is a new or expanded manure storage facility at an agricultural operation with more than 1,000 animal equivalent units, regardless of the capacity of the impoundment.

(5)] If the Department determines that a permit is necessary for effective regulation to insure that pollution will not result from the use, operation or maintenance of the wastewater impoundment.

(d) [The following types of agricultural operations are not subject to subsections (b) and (c) or the freeboard requirements of subsection (a), but shall provide a 12-inch freeboard for all waste storage ponds as defined in the “Pennsylvania Technical Guide” and a 6-inch freeboard for all waste storage structures at all times:

(1) An agricultural operation, which contains less than 1,001 animal equivalent units.

(2) An agricultural operation in existence prior to January 29, 2000, and designed in accordance with the "Pennsylvania Technical Guide" and addenda or amendments thereto.

(e)] This section does not apply to [residual]:

(1) Manure storage facilities at agricultural operations, which are governed by § 91.36 (relating to pollution control and prevention at agricultural operations).

(2) Residual waste processing, disposal, treatment, collection, storage or transportation.

§ 91.36. Pollution control and prevention at agricultural operations.

(a) *Animal manure storage facilities.* [Except as provided in paragraphs (1) and (2), animal manure storage facilities do not require a water quality management permit from the Department if the design and operation of the storage facilities are in accordance with the Department approved manure management practices as described in the publication entitled "Manure Management for Environmental Protection" and addenda or amendments thereto prepared by the Department, "The Pennsylvania Technical Guide" and addenda and amendments thereto, and when applicable, § 83.351 (relating to minimum standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities) and each animal manure storage facility is designed to prevent discharges to surface waters during a storm event of less than a 25-year/24-hour storm. In addition, in the case of animal manure storage facilities located at animal operations with over 1,000 animal equivalent units on or before January 29, 2000, a water quality management permit is not required if a registered professional engineer certifies that the design and construction of each manure storage facility is consistent with the "Pennsylvania Technical Guide."]

(1) A permit is required under § 91.35 (relating to wastewater impoundments) for the design, construction and operation of any new or expanded animal manure storage facility at an agricultural operation with more than 1,000 animal equivalent units. In addition to the requirements of § 91.35, the permit shall incorporate the requirements of this section.

(2) If a person chooses to design or construct manure storage facilities using criteria other than those described in "Manure Management for Environmental Protection" prepared by the Department and the "Pennsylvania Technical Guide" and addenda or amendments to those publications, approval of the Department or a permit under § 91.35 will be required. Operations which are required to or volunteer to submit nutrient management plans shall comply with the nutrient management regulations in Chapter 83 (relating to State Conservation Commission).]

(1) Except as provided in paragraphs (2) and (3), a manure storage facility shall be designed, constructed, operated and maintained in accordance with the Manure Management Manual and the Pennsylvania Technical Guide. For liquid or semisolid manure storage facilities constructed after January 29, 2000, the owner or operator shall meet one of the following:

(i) The design and construction of the facility shall be certified to meet the "Manure Management Manual" and "Pennsylvania Technical Guide" by a registered professional engineer.

(ii) The owner or operator shall obtain a water quality management permit from the Department for the manure storage facility.

(2) In the case of a liquid or semisolid manure storage facility located at an animal operation with over 1,000 AEUs for the first time after January 29, 2000, a water quality management permit is required.

(3) For a new or expanded agricultural operation after _____ (*Editor's Note: The blank refers to the effective date of adoption of this proposal.*), the following requirements apply to a liquid or semisolid manure storage facility:

(i) Where the manure storage capacity is between 1 million and 2.5 million gallons, a water quality management permit is required for any manure storage facility that meets one of the following:

(A) It is a clay-lined earthen waste storage pond.

(B) The nearest downgradient stream is classified as a High Quality or Exceptional Value water under Chapter 93 (relating to water quality standards).

(C) The nearest downgradient stream that has been assessed and has been determined by the Department to be impaired from nutrients from agricultural activities and the manure storage facility is on an agricultural operation that is not implementing a Nutrient Management Plan approved by the State Conservation Commission under Chapter 83, Subchapter D (relating to nutrient management).

(ii) Where the manure storage capacity is 2.5 million gallons or more, a water quality management permit is required.

(4) A manure storage facility at a CAFO as defined in Chapter 92 (relating to NPDES permitting, monitoring and compliance) shall be designed, constructed, operated and maintained to prevent discharges to surface waters during a storm event up to and including a 25-year/24-hour storm, except for new or expanded agricultural operations that are CAFOs, that commenced operations after April 13, 2003, and that include swine, poultry or veal calves. The facilities for those swine, poultry or veal calves shall prevent discharges to surface waters during a storm event up to and including a 100-year/24-hour storm.

(5) For a liquid or semisolid manure storage facility, the following minimum freeboard requirements apply and shall be maintained:

(i) For an agricultural operation with over 1,000 AEUs that was a new or expanded operation after January 29, 2000, a minimum 24-inch freeboard.

(ii) For all other facilities as follows:

(A) Earthen waste storage ponds, a minimum 12-inch freeboard, as described in the Pennsylvania Technical Guide.

(B) For all waste storage structures containing animal wastes, a minimum 6-inch freeboard, as described in the Pennsylvania Technical Guide.

(6) The requirements in this section are in addition to and do not replace those in Chapter 83, Subchapter D.

(7) The Department may require a water quality management permit for any manure storage facility, based on relevant criteria such as proximity to special protection waters or impaired waters under Chapter 93, or the risk of pollution.

(b) Land application of animal manure, litter and process wastewater; setbacks and buffers.

(1) The land application of animal manures [does not require], litter and process wastewaters requires a permit or approval from the Department [if] unless the operator can demonstrate that the land application [of manure] is in accordance with [the] requirements of paragraph (2) and one of the following is satisfied:

(i) The land application is in accordance with [Department approved manure management] practices as described in the [publication entitled "] Manure Management Manual [for Environmental Protection" and addenda or amendments thereto prepared by the Department. If a person chooses to apply animal manure using the criteria other than those described in "Manure Management Manual for Environmental Protection" and addenda or amendments thereto prepared by the Department, approval of the Department or a permit will be required. Operations which are required to or volunteer to submit nutrient management plans shall comply with Chapter 83].

(ii) For CAOs, the land application is in accordance with an approved nutrient management plan under Chapter 83, Subchapter D.

(iii) For CAFOs, the land application is in accordance with a CAFO permit as described in § 92.5a (relating to CAFOs).

(2) Appropriate vegetated buffers and setbacks established by the Department shall be followed to protect and maintain water quality.

(c) Discharge of pollutants. It is unlawful for agricultural operations to discharge pollutants to waters of this Commonwealth except as allowed by regulations or a permit administered by the Department. The Department is authorized to take an enforcement action against any agricultural operation in violation of this requirement. In addition, when an agricultural operation is found to be in violation of The Clean Streams Law (35 P. S. §§ 691.1—691.1001), the Department may require the agricultural operation to develop and implement a nutrient management plan under Chapter 83, Subchapter D, for abatement or prevention of the pollution.

CHAPTER 92. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITTING, MONITORING AND COMPLIANCE GENERAL PROVISIONS

§ 92.1. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context indicates otherwise:

* * * * *

CAFO—Concentrated animal feeding operation—A CAO with greater than 300 AEUs any agricultural operation with greater than 1,000 AEUs [or an agricultural operation with a discharge to surface waters during a storm event of less than a 25-year/24-hour storm], any agricultural operation with a discharge to surface waters that is authorized by Department permit limits and conditions, any agricultural operation defined as a large CAFO under 40 CFR 122.23(b)(4) (relating to concentrated animal feeding operations (applicable to state NPDES programs, see 123.25)), or any other agricultural operation designated as a CAFO by the Department based on risk of pollution of surface waters using relevant criteria such as the size, location and management plan of the operation.

* * * * *

Livestock—

(i) Animals raised, stabled, fed or maintained on an agricultural operation with the purpose of generating income or providing work, recreation or transportation. Examples include: dairy cows, beef cattle, goats, sheep, swine and horses.

(ii) The term does not include aquatic species.

* * * * *

Setback—A specified distance from surface waters or potential conduits to surface waters where manure, litter and process wastewater may not be land applied.

* * * * *

Vegetated buffer—A permanent strip 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.

* * * * *

PERMITS

§ 92.5a. CAFOs.

(a) [Each] Except as provided in subsections (b) and (c), each CAFO shall [apply] have applied for an NPDES permit on the following schedule:

* * * * *

(3) Prior to beginning operation, for any new or expanded CAFO that [begins] began operation after November 18, 2000, and before _____ (Editor's Note: The blank refers to the effective date of adoption of this proposal).

(b) A poultry operation that is a CAFO, which is in existence on _____ (Editor's Note: The blank refers to the effective date of adoption of this proposal.) and that is not using liquid manure handling systems, shall apply for an NPDES permit no later than the following:

(1) _____ (Editor's Note: The blank refers to a date 6 months after the effective date of adoption of this proposal.) for operations with 500 or more AEUs.

(2) _____ (Editor's Note: The blank refers to a date 15 months after the effective date of adoption of this proposal.) for operations with 300—499 AEUs.

(c) After _____ (*Editor's Note: The blank refers to the effective date of adoption of this proposal.*), a new operation, and an existing operation that will become a CAFO due to changes in operations such as additional animals or loss of land suitable for manure application, shall do the following:

(1) Apply for an NPDES permit no later than 180 days before the operation commences or changes.

(2) Obtain an NPDES permit prior to commencing operations.

[(b)](d) The NPDES permit **[for each CAFO shall include conditions requiring]** application requirements shall include, but not be limited to, the following:

(1) A nutrient management plan meeting the requirements of Chapter 83 **[(relating to State Conservation Commission)]**, Subchapter D (relating to nutrient management) and approved by the county conservation district or the State Conservation Commission. The plan must include written agreements with importers or brokers related to the land application of manure, and nutrient balance sheets or a nutrient management plan for the importing farms. The plan must also include one of the following, whichever is more stringent:

(i) Buffers and manure application setbacks for the CAFO of no less than 100 feet from downgradient surface water, or vegetated buffer no less than 35 feet in width.

(ii) Buffers and setbacks as required by § 91.36(b)(2) (relating to pollution control and prevention at agricultural operations).

(2) An erosion and sediment control plan for plowing and tilling operations meeting the requirements of Chapter 102 (relating to erosion and sediment control).

(3) **[For earth disturbances of 5 acres or more, an NPDES permit for stormwater discharges associated with a construction activity meeting the requirements of Chapter 102.]** When required under § 91.36(a), a water quality management permit, permit application, or engineer's certification, as required.

(4) A preparedness, prevention and contingency plan for pollutants related to the CAFO operation.

[(c)](e) **[In addition to the requirements of subsection (b), the]** NPDES **[permit]** permits for each CAFO **[with greater than 1,000 AEUs]** shall include, but not be limited to, conditions requiring the following:

[(1) A water quality management permit under § 91.36(a) (relating to pollution control and prevention at agricultural operations).

(2) A preparedness, prevention and contingency plan for chemicals related to the CAFO operation.

(3) Written agreements with importers or brokers related to the land application of manure and nutrient balance sheets for all exported manure.]

(1) Compliance with the Nutrient Management Plan, the Preparedness, Prevention and Contingency Plan and the Erosion and Sediment Control Plan.

(2) A separate NPDES permit for stormwater discharges associated with a construction activity meeting the requirements of Chapter 102 for any earth disturbance of 1 acre or more with a point source discharge to surface waters, or 5 acres or more regardless of the planned runoff.

(3) Compliance with 3 Pa.C.S. §§ 2301—2389 (relating to the Domestic Animal Law).

(4) Compliance with § 91.36.

(5) Recordkeeping and reporting requirements as described in the permit.

[Pa.B. Doc. No. 04-1473. Filed for public inspection August 6, 2004, 9:00 a.m.]

STATE CONSERVATION COMMISSION

[25 PA. CODE CH. 83]
Nutrient Management

The State Conservation Commission (Commission) proposes to amend Subchapter D (relating to nutrient management). The proposed rulemaking amends the current regulations implementing provisions of the Nutrient Management Act (act) (3 P. S. §§ 1701—1719).

This proposed rulemaking was adopted at the Commission's meeting on September 9, 2003.

A. *Effective Date*

The proposed rulemaking will go into effect upon final-form publication in the *Pennsylvania Bulletin*.

B. *Contact Person*

For further information, contact Karl G. Brown, Executive Secretary, State Conservation Commission, Suite 407, Agriculture Building, 2301 North Cameron Street, Harrisburg, PA 17110, (717) 787-8821. Information regarding submitting comments on this proposed rulemaking appears in Section J. Persons with a disability may use the AT&T Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposed rulemaking is also available on the Commission's website: www.pascc.state.pa.us.

C. *Statutory Authority*

The proposed rulemaking is promulgated under the authority of section 4(1) and (3) of the act (3 P. S. § 1704(1) and (3)), which require the Commission to, 5 years after the effective date of the regulations, and periodically thereafter, promulgate regulations to make appropriate changes to the criteria used to define a concentrated animal operation (CAO), and to establish minimum criteria for nutrient management plans (NMP) and other requirements necessary to implement the act. The proposed rulemaking is promulgated under section 4 of the Conservation District Law (3 P. S. § 852), which authorizes the Commission to promulgate rules and regulations as may be necessary to carry out its functions. The proposed rulemaking is also promulgated under section 503(d) of the Conservation and Natural Resources Act (71 P. S. § 1340.503(d)), which modified the authority and responsibilities of the Commission, the Department of Environmental Protection (DEP) and the Department of Agriculture (Department).

D. Background and Summary

The proposed rulemaking is the culmination of several years' work administering the act across this Commonwealth, advances in the sciences of agronomics and manure management, as well as legislative hearings voicing public concerns with livestock agriculture and changes in the industry. Currently, 840 operations are subject to the existing nutrient management regulations, and an additional 950 farms have voluntarily complied with the requirements.

The act was enacted in May 1993 to, in part, provide for the management of nutrients on certain agricultural operations to abate nonpoint source pollution. The act requires the Commission, in conjunction with the Department, the DEP, the Penn State Cooperative Extension, the Nutrient Management Advisory Board (Advisory Board) and county conservation districts, to develop a program for the proper utilization and management of nutrients. The Commission staff has worked closely with these organizations in developing these proposed revisions.

Nitrogen is identified in section 4(1)(i) of the act as the nutrient of primary concern, but it allows for the Commission to address other nutrients under specific criteria established by the Commission. The rulemaking proposes to add another nutrient—phosphorus—to be considered within the development of an NMP. This proposed amendment, along with various provisions regarding the export of manure off of farms covered by these regulations, were two central issues with the current program identified to the Commission by the House Committee on Agriculture and Rural Affairs (House Committee) following public hearings in 2001.

The Commission is also required to provide education, technical assistance and financial assistance to the agricultural community regarding proper nutrient management. To date, the Commission has administered over \$15.9 million in financial assistance to farmers subject to the requirements of these regulations.

The Commission developed the proposed rulemaking in conjunction with the Advisory Board as required by the act. The Advisory Board, which represents a wide range of agricultural, academia, governmental, environmental and private interests, provided extensive and diligent assistance to the Commission over the past 2 years in an effort to develop workable and effective proposed revisions to the regulations. The development of the proposed rulemaking was also done with continued assistance and guidance from county conservation districts, the Department, DEP, the United States Department of Agriculture (USDA) Natural Resources Conservation Service, the USDA Agricultural Research Service and the Penn State College of Agricultural Sciences.

The proposed rulemaking directly affects the CAOs that are required to plan under the act as well as agricultural operations that volunteer to meet the requirements under the act. In addition, the proposed rulemaking will affect operations that agree to import manure from CAOs or volunteers, and others involved in export, such as commercial haulers and brokers.

The Commission has worked hard and has been successful in obtaining voluntary participation of other agricultural operations in the nutrient management program. The Commission believes that a strong voluntary program must operate simultaneously with the mandated regulatory program to further protect water quality in this Commonwealth.

NMPs are required to be developed by nutrient management specialists certified by the Department. Additionally, NMPs are to be submitted to the Commission or delegated county conservation district for approval. Nutrient management planning responsibilities are set forth in detail in this proposed rulemaking. Minimum standards for the construction, location, storage capacity and operation of animal manure storage facilities on agricultural operations that develop a plan under the act are included.

Agricultural operations may apply for financial assistance to develop and to implement NMPs. In accordance with the act, Commission responsibilities for administering the act and regulations can be delegated to county conservation districts and this is being done in a majority of the counties across this Commonwealth to ensure timely and effective implementation of the program.

E. Summary of Proposed Rulemaking

General

Clarifying and stylistic changes to the existing regulations are made throughout this proposed rulemaking. Many changes are intended to comply with the *Pennsylvania Code & Bulletin Style Manual* used by the Legislative Reference Bureau.

§ 83.201 (relating to definitions)

New definitions have been included for the terms "conservation plan," "Erosion and Sedimentation Control Plan," "existing agricultural operation," "in-field stacking," "livestock," "manure group," "nutrient balance sheet," "Phosphorus Index" and "VAO." The definition of "CAO" is revised to exclude operations having less than eight animal equivalent units (AEU) from the CAO category, regardless of animal density. The definition of "surface water" was revised to be consistent with the definition in similar regulations implemented by the Commonwealth.

Current definitions were revised to provide clarification based on implementation of the existing regulations over the past several years: "crop management unit," "farming resources," "Manure Management Manual," "perennial stream," "plan-nutrient management plan" and "temporary manure stacking areas." Minor, nonsubstantive revisions have been made to other existing definitions.

§ 83.202 (relating to scope)

Language is added to clarify the relationship between the criteria in these regulations, Chapter 92 (relating to National pollutant discharge elimination system permitting, monitoring and compliance) for "concentrated animal feeding operations" (CAFOs) and operations required by the DEP to develop a plan to address a Clean Streams Law violation. The volunteer portion of this section of the regulations was streamlined through the definition of a voluntary agricultural operation (VAO). Language is revised to allow the Commission to better oversee manure storage facilities used on operations falling under the act.

§ 83.204 (relating to applicability of requirements)

Language added to clarify the relationship between the criteria in the CAO portion of the regulations, Chapter 92 for the DEP CAFO program and operations required by the DEP to develop a plan to address a Clean Streams Law violation. The volunteer portion of this section was streamlined through the definition of a VAO.

§ 83.211 (relating to applicant eligibility)

This section is revised to change the eligibility date for operations to the effective date of the proposed rulemaking. Language is added to grant eligibility to operations that do not produce manure but utilize manure on

their operation. Language is added to deny funding to CAOs that are in violation of the act. Language is added to allow the Commission to provide funding to an operator revising an existing approved NMP to meet the standards of the proposed rulemaking.

§ 83.213 (relating to application procedure)

The provision to allow funding only to CAOs for a certain time frame is eliminated in the proposed rulemaking. A revised prioritization scheme is proposed to give priority to operations newly classified as CAOs under the proposed rulemaking, and to also provide priority to those operations with approved NMPs that need to revise those plans to bring them into compliance with the proposed rulemaking.

§ 83.214 (relating to eligible costs)

Language is added to provide funding for an amendment to an approved plan to bring it up to the standards of the proposed rulemaking, as well as initial plan development. Language is added to provide funding for soil and manure analysis.

§ 83.215 (relating to funding limitations)

Language is added to allow for a one-time reimbursement for a plan amendment to an already approved plan to bring that plan up to the standards of the proposed rulemaking.

§ 83.221 (relating to applicant eligibility)

Language is added to express that new operations are not eligible for funding under this program to install their NMP. Language is revised to state that the owner of the operation will be responsible for repayment (if that is necessary) unless the operator is specifically identified in the agreement to hold responsibility. Language is added to deny financial assistance funding to CAOs that are in violation of the provisions of the act, as well as denying funding to existing operations expanding to become a CAO after the effective date of the proposed rulemaking.

§ 83.222 (relating to condition for receipt of financial assistance)

Language is revised to change the eligibility date for operations applying for financial assistance to coincide with the effective date of the proposed rulemaking.

§ 83.224 (relating to project evaluation and prioritization criteria)

This section is amended to eliminate the priority evaluation of CAOs in receiving financial assistance for a given timeframe. The prioritization scheme was revised to give priority to those existing operations with already approved NMPs that need to take additional measures to address the new requirements imposed by the proposed rulemaking. Also, priority is given to operations newly defined as CAOs under this proposed rulemaking. Lastly, revised language is provided to change the date at which priority is given for CAOs coming into existence due to loss of rented acres.

§ 83.225 (relating to application procedure)

Language is revised to require the submission of the entire NMP along with an application for financial assistance, instead of just the plan summary. Language is revised to allow the Commission 60 days to take action on an application for financial assistance.

§ 83.226 (relating to eligible costs for the implementation of an approved plan)

Language is added to allow the use of alternative manure technology practices and equipment.

§ 83.229 (relating to grants)

Language is revised to accommodate operations that will be combining financial assistance from a variety of other public financial assistance programs.

§ 83.231 (relating to funding limitations)

Language is added to express more directly what circumstances the Commission will consider as valid for approval of a letter of no prejudice.

§ 83.232 (relating to implementation and reporting)

Language is added to extend the start date for a project to 9 months and to clarify that the beginning of that 9-month time period is when the Commission sends out its notice of approval of the grant application. Language is added to allow for the Commission to withdraw financial assistance if a project is not finished by the completion date set forth in the signed grant agreement.

§ 83.261 (relating to General)

Language is added to explicitly express the new timeframes by which CAOs must meet the provisions of the act. Specifically, newly defined CAOs will have 2 years to submit an NMP, newly defined CAOs due to loss of land will have 6 months to submit a plan, newly defined CAOs due to expansion in animal numbers shall obtain an approved plan prior to the expansion and new CAOs shall obtain an approved plan prior to the beginning of operation. Language is added to require amendment of an already approved CAO plan within the 3-year review requirement, or within 1 year of the effective date, whichever is later. VAOs with approved plans are given the same plan amendment timeframes if they wish to continue their volunteer status. VAOs that received financial assistance prior to the proposed rulemaking are permitted to maintain their plan in accordance with the standards at the time that they received the financial assistance. Language is added to require the operator to submit the plan. Language is added to require the signature of the planner and to indicate that those signing the plan are responsible for the validity of the information in the plan.

§ 83.262 (relating to identification of CAOs)

Language is revised to improve the readability of the calculation described in the regulations. Table A—the standard animal weights to be used in the CAO calculation—is proposed to be deleted and is referenced through Agronomy Fact Sheet 54, published by Penn State. Language is added to establish a minimum threshold of eight AEUs for an operation to be considered a CAO.

§ 83.272 (relating to content of plans)

Language is added to strengthen the link between the criteria in these regulations, the DEP CAFO program and operations required by the DEP to develop a plan to address a Clean Streams Law violation. Language is deleted to better indicate which requirements apply to CAOs and which apply to others. The volunteer portion of this section was streamlined through the definition of a VAO. Language is revised: to require a plan to contain the various plan sections as described in the regulations, as appropriate; to strengthen the necessity of the farmer's involvement in the development of the plan; and to require approval by the Commission or delegated conservation district for NMP BMPs that are inconsistent with other plans such as a conservation plan.

§ 83.281 (relating to Identification of agricultural operations and acreage)

This section is separated into four areas: agricultural operation identification sheet; maps and aerial photo-

graphs; Phosphorus index; and agreements with importers and brokers. Language is added requiring a brief farm description in the plan and outlining criteria to be included in the farm description. Language is added to subsection (a)(3) to ensure that the proper entity signs the plan when a corporation or partnership are the operators of the farm. Language is added: to clarify what acreage is to be included in the plan; to require the signature of the specialist responsible for the development of the plan; to require a scaled topographic map to be included in the plan; require any proposed or existing BMPs, any temporary manure stacking and any in-field manure stacking areas to be located on the farm map; and to require an appendix to the plan which is to include the information used to develop the Phosphorus Index values for the fields in the agricultural operation. Language has also been added to require an appendix to the plan containing relevant signed exporting agreements and associated nutrient balance sheets and maps.

§ 83.282 (relating to summary of plan)

Language is revised clarifying required information to be included in the nutrient application portion in the plan summary section of the plan.

§ 83.291 (relating to determination of available nutrients)

Language is revised in subsection (a) to clarify that all the various nutrient sources generated or planned to be used on a CAO must be addressed through the plan. Language is revised to require that the plan include the nutrient content of each manure group generated on the operation as per a chemical analysis of the manure. When it is not possible to test the manure prior to plan development, the proposed rulemaking allows for the use of book values to determine nutrient content of the manure (from the Pennsylvania Agronomy Guide) or the use of manure analysis figures from a similar facility, and the proposed rulemaking requires the manure to be tested within 1 year of implementing the plan. Language is added: to require manure tests to be taken annually for each manure group; to detail what constituents are to be tested when analyzing manure; to indicate that the Commission will specify manure testing procedures to be used; and to require actual manure production records to be used in the development of the plan, and if they are not available, a calculation is permitted to be used. The information used for calculating the manure generated figure must be included in the plan. The soil testing language is moved from this section to § 83.292 (relating to determination of nutrients needed for crop production).

§ 83.292

The soil testing language is moved from § 83.291 to subsection (c). Language is revised: to require soil testing every 3 years for maintenance of the plan; to require soil test results for phosphorus to be included in the plan as part of the Phosphorus Index analysis; and to document in the plan the amount of phosphorus necessary (based on the soil tests) to meet expected crop yields. The lime requirement language is deleted. Language is added to change the reference handbook that is to be used to generate nutrient recommendations for the plan when the soil test figures require adjustment.

§ 83.293 (relating to determination of nutrient application rates (Nutrient application for CAO plans))

A new provision is added to incorporate field specific phosphorus considerations in NMPs through the use of an onsite analysis of the farm's fields. This analysis is used to determine which fields are likely to affect water quality through the loss of phosphorus. This analysis, which has

been developed through a joint effort between the Penn State and the USDA Agricultural Research Service, also documents control measures to be taken to address fields having a likelihood of phosphorus loss.

Language is also added to require the following elements to be included in the plan: a Phosphorus Index analysis as part of the development of nutrient application rates for lands included in the agricultural operation; the information used in calculating the balanced rate for manure applications; and documentation of the difference between the amount of phosphorus necessary to meet crop needs and the amount of phosphorus applied to each crop management unit. Language regarding making up a nitrogen deficit with supplemental nitrogen applications is removed because it is already addressed in the previous sentence in the section.

§ 83.294 (relating to nutrient application procedures)

Language is added to require relevant plans to include manure spreader calibration information. For operators not able to meet this plan documentation, an operator will be required to do the necessary calibration prior to application and record this information in any plan amendments. Language is added to require an analysis of the water holding capacity of the soil when determining application rates for irrigated manure, and to provide the proper reference for calculating appropriate application rates for irrigated manure. Language is added to require the manure irrigation application rate calculations to be included in the plan for instances where liquid manure will be applied at rates exceeding 9,000 gallons per acre, regardless of the application method. Language is revised for the manure application setback from an active private drinking water well to require a 100-foot radius setback, regardless of conditions or management.

Language has also been added: to require a manure application setback from inactive open drinking water wells; to restrict the application of manure on lands having less than 25% cover unless additional BMPs approved by the Commission, such as cover crops, are implemented; to provide further detail of what is required in the plan when winter application is planned; to provide specific requirements for situations where manure is planned to be stacked in crop fields; and to establish commercial manure applicator requirements including testing, training, recordkeeping and compliance history qualifications (described in § 83.301 (relating to excess manure utilization plans for CAOs)).

§ 83.301

Amendments to this section provide more detailed oversight of manure exported from CAOs. This was a significant issue in hearings conducted by the House Committee. Based on Commission records of 839 approved CAO plans, 28.3% of the manure generated on CAO farms is exported.

Revised language regarding when manure is exported to known landowners includes a description of responsibilities between exporters, importers, brokers and others, and a requirement for signed agreements with importers indicating who is responsible for the application of exported manure. Language is also added to require nutrient balance sheets (including maps) or NMPs for importing sites. In addition, provisions were added to set forth eligibility criteria for any commercial haulers or applicators used for exported manure, such as testing, training, recordkeeping and compliance history.

Revised language regarding when manure is exported through a broker includes a requirement for signed

agreements with the brokers indicating that the broker is responsible for the proper handling and storage (if applicable) of the manure they accept. Language is also added to establish eligibility criteria for brokers similar to those for haulers and applicators, and to require the broker to develop nutrient balance sheets (or ensure there are approved NMPs) for the importing sites.

Revised language regarding when manure is exported for other than land application requires signed agreements with importers of the manure.

Revised language regarding when manure is exported using an open marketing system requires operators following this scenario to meet certain qualification requirements and to require them to complete nutrient balance sheets for importing sites unless the importing site has an approved NMP.

New language allows for an exception to these detailed exporting requirements if the importing site is to receive a minor amount of manure (as defined in the proposed rulemaking) from the CAO. Language is added to require a 150-foot manure application setback from surface waters on importing sites, unless an approved NMP on the importing site allows for manure to be applied in that area and to require all other manure application setbacks established in the regulations to be applied to importing sites.

§ 83.311 (relating to manure management)

Language is added: to clarify that manure management practices need to prevent pollution from storm events up to a 25-year, 24-hour storm; to clarify what conditions are to be addressed with the implementation of manure management BMPs; to require operators to address existing manure storage facilities that were constructed inconsistent with the DEP's manure storage facility regulations; to require the development of Operation and Maintenance Plans as part of the design for proposed BMPs; to establish animal concentration area (barnyards, feedlots, exercise areas, and the like) criteria to protect surface waters from polluted runoff; and to require the plan to include a description of any proposed manure storage facilities planned to be constructed on the operation including any alternative manure technology practices or equipment.

§ 83.312 (relating to site specific emergency response plans)

This section is added to require the development and implementation of a full-farm emergency response plan to address any possible accidental releases of manure to the environment. A copy of the emergency response plan is required to be kept onsite and is not required to be submitted with the NMP. The NMP is to include a verification from the planner that this emergency response plan is developed and available at the operation. This section establishes that manure storage contingency plans (as required under § 83.351 (relating to minimum standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities)) are required as an appendix to the emergency response plan.

§ 83.321 (relating to stormwater runoff control)

The word "runoff" is deleted from this section because the term "stormwater" is defined as runoff water. Language is added: to require the development of an Operation and Maintenance Plan as part of the design for proposed BMPs; and to require the NMP to include a verification that a current Erosion and Sedimentation

Control Plan (or conservation plan) exists for the plowed and tilled croplands included in the NMP. This new requirement is closely tied to the addition of phosphorus as a consideration in nutrient management planning, due to the runoff transport mechanisms which play a major role in phosphorus losses to streams and which are addressed in conservation plans. Finally, the animal concentration area language is moved from this section to § 83.311.

§ 83.342 (relating to recordkeeping relating to application of nutrients)

Language is added to require soil testing every 3 years and manure testing annually for each manure group. Revised language requires dates of manure application, rather than months of application. Language is added to require records to be kept of the time animals are on pastures.

§ 83.343 (relating to alternative manure utilization recordkeeping)

The "Manure Transfer Sheet" is renamed the "Manure Export Sheet." Language is added to clarify: who is to receive a copy of the Manure Export Sheet; what records are to be maintained when the exporter, or someone working for the exporter, applies the manure on importing sites; and what records brokers must maintain when they are involved in the export of the manure. Language regarding the submission of manure exporting records is deleted, recognizing that the new Commission policy requires program staff to review these records at the operation at least once every year. Subsection (f) is deleted because the amendments to § 83.291 require manure tests to be done of all manure generated on a CAO.

§ 83.344 (relating to exported manure information packets)

Language is added to provide a more defined paper trail with the commercial manure haulers and applicators. The fact sheet referenced in subsection (b)(1) is deleted because it is redundant with the inclusion of the nutrient balance sheet requirement in the proposed rulemaking.

§ 83.351

Language is added: to ensure that manure storage facilities built as part of an approved NMP are completed in compliance with § 91.36 (relating to pollution control and prevention at agricultural operations); to ensure that manure storage facilities built on CAOs after October 1, 1997, were completed in compliance with the criteria in the regulations at the time it was built; and to require the submission of an engineer's verification at least 2 weeks prior to the construction of a new storage facility or repair of an existing facility, to ensure that the design and location of the facility is in compliance with applicable program standards.

§ 83.361 (relating to initial plan review and approval)

The authority for the Commission or conservation district to "modify" a plan is deleted. Language is added: to require notification to the operator indicating the result of the 10-day completeness review; and to clarify when the 90-day plan review timeframe starts.

§ 83.362 (relating to plan implementation)

Language is added: to clarify that the plan needs to be implemented consistent with the approved implementation schedule in the plan; to clarify that approved nutrient application rates are to be carried out upon approval

of the plan; and to clarify conditions under which plan implementation can be extended past the 3-year limit. Language is deleted regarding plan implementation extensions due to the lack of funding provided through the Commission, because the Commission provides several funding sources for plan implementation.

§ 83.371 (relating to plan amendments)

Language is revised to require a plan amendment when exporting arrangements change unless it is for the loss of an importer who will not affect the CAO's ability to manage the manure generated on the operation. Language is added to require an amendment: when new organic nutrient sources will be used on the operation; if additional lands are bought or leased for the operation; and if a change in the manure management system is expected to result in a significant change in the manure nutrient content. Language is added to address nonsignificant changes on the operation that require the plan to be updated to reflect current conditions, but do not require a formal plan amendment.

§ 83.381 (relating to manure management in emergency situations)

Language is added to subsection (g) requiring soil tests to be taken annually for 3 consecutive years if manure has been over applied to an area in response to an emergency situation.

§ 83.391 (relating to identification of agricultural operations and acreage)

This section is separated into four areas: agricultural operation identification sheet; maps and aerial photographs; Phosphorus Index; and agreements with importers and brokers. Language is added to subsection (a)(3) to ensure that the proper entity signs the plan when a corporation or partnership are the operators of the farm. Language is added: to require a brief farm description in the plan and outlining criteria to be included in the farm description; to clarify what acreage is to be included in the plan; to require the signature of the specialist responsible for the development of the plan; to require a scaled topographic map to be included in the plan; to require any proposed or existing BMPs, any temporary manure stacking and any in-field manure stacking areas to be located on the farm map; to require an appendix to the plan which is to include the information used to develop the Phosphorus Index values for the fields in the agricultural operation; and to require an appendix to the plan containing relevant signed exporting agreements and associated nutrient balance sheets and maps.

§ 83.392 (relating to summary of plan)

Language is revised clarifying required information to be included in the nutrient application portion in the plan summary section of the plan.

§ 83.401 (relating to determination of available nutrients)

Language is revised in subsection (a) to clarify that all the various nutrient sources generated or planned to be used on a VAO must be addressed through the plan. Language is revised to require that the plan include the nutrient content of each manure group generated on the operation as per a chemical analysis of the manure. When it is not possible to test the manure prior to plan development, the proposed rulemaking allows for the use of book values to determine nutrient content of the manure (from the Pennsylvania Agronomy Guide) or the use of manure analysis figures from a similar facility, and the proposed rulemaking requires the manure to be tested within 1 year of implementing the plan. Language

is added: to require manure tests to be taken annually for each manure group, detail what constituents are to be tested when analyzing manure, and to indicate that the Commission will specify manure testing procedures to be used; and to require actual manure production records to be used in the development of the plan, and if they are not available, a calculation is permitted to be used. The information used for calculating the manure generated figure must be included in the plan. The soil testing language from this section is moved to § 83.402 (relating to determination of nutrients needed for crop production).

§ 83.402

The soil testing language is moved from § 83.401 to subsection (c). Language is revised: to require soil testing every 3 years for maintenance of the plan; to require soil test results for phosphorus in be included in the plan as part of the Phosphorus Index analysis; and to document in the plan the amount of phosphorus necessary (based on the soil tests) to meet expected crop yields. The lime requirement language is deleted in the proposed rulemaking. Language is added to change the reference handbook that is to be used to generate nutrient recommendations for the plan when the soil test figures require adjustment.

§ 83.403 (relating to determination of nutrient application rates)

A new provision is added to incorporate field specific phosphorus considerations in NMPs through the use of an onsite analysis of the farm's fields. This analysis is used to determine which fields are likely to affect water quality through the loss of phosphorus. This analysis, which has been developed through a joint effort between Penn State and the USDA Agricultural Research Service, also documents control measures to be taken to address those fields having a likelihood of phosphorus loss.

Language is added to require the following elements to be included in the plan: a Phosphorus Index analysis as part of the development of nutrient application rates for lands included in the agricultural operation; the information used in calculating the balanced rate for manure applications; and documentation of the difference between the amount of phosphorus necessary to meet crop needs and the amount of phosphorus applied to each crop management unit. Language regarding making up a nitrogen deficit with supplemental nitrogen applications is removed because it is already addressed in the previous sentence of the section.

§ 83.404 (relating to nutrient application procedures)

Language is added to require relevant plans to include manure spreader calibration information. For those not able to meet this plan documentation, the operator will be required to do the necessary calibration prior to application and record this information in any plan amendments. Language is added to require an analysis of the water holding capacity of the soil when determining application rates for irrigated manure, and to provide the proper reference for calculating appropriate application rates for irrigated manure.

Language has also been added to require the manure irrigation application rate calculations to be included in the plan for instances where liquid manure will be applied at rates exceeding 9,000 gallons per acre, regardless of the application method. Language is revised for the manure application setback from an active private drinking water well to require a 100-foot radius setback, regardless of conditions or management. Language is added: to require a manure application setback from

inactive open drinking water wells; to restrict the application of manure on lands having less than 25% cover unless additional BMPs approved by the Commission, such as cover crops, are implemented; to provide further detail of what is required in the plan when winter application is planned; to provide specific requirements for situations where manure is planned to be stacked in crop fields; and to establish commercial manure applicator requirements including testing, training, recordkeeping and compliance history qualifications.

§ 83.411 (relating to alternative manure utilization plans)

This section is completely rewritten to provide more detailed oversight of manure exported from operations having approved NMPs. This was a significant issue in hearings conducted by the House Committee. Based on Commission records of 949 approved VAO plans, only 3.3% of the manure generated on VAO farms is exported.

Language is added regarding when manure is exported to known landowners, so that the plan includes a description of responsibilities between exporters, importers, brokers and others, and a requirement for signed agreements with importers indicating who is responsible for the application of exported manure. Language is also added to require nutrient balance sheets (including maps) or NMPs for importing sites. In addition, provisions were added to set forth eligibility criteria for any commercial haulers or applicators used for exported manure, such as testing, training, recordkeeping and compliance history.

Language is added regarding when manure is exported to a broker: to require signed agreements with the brokers; to indicate the broker is responsible for the proper handling and storage (if applicable) of manure that they accept; to establish eligibility criteria for brokers similar to those for haulers and applicators; and to require the broker to develop nutrient balance sheets (or ensure there are approved NMPs) for the importing sites.

Language is added regarding when manure is exported: to known landowners for other than land application to require signed agreements with importers of the manure; using an open marketing system to require operators following this scenario to meet certain qualification requirements, and to require them to complete nutrient balance sheets for importing sites unless the importing site has an approved NMP.

New language allows for an exception to these detailed exporting requirements if the importing site is to receive a minor amount of manure (as defined in the regulations) from the CAO. Language is added to require a 150-foot manure application setback from surface waters on importing sites, unless an approved NMP on the importing site allows for manure to be applied in that area, and to require all other manure application setbacks established in the regulations to be applied to importing sites.

§ 83.421 (relating to manure management)

Language is added: to clarify that manure management practices need to prevent pollution from storm events up to a 25-year, 24-hour storm; to clarify what conditions are to be addressed with the implementation of manure management BMPs; to require operators to address existing manure storage facilities that were constructed inconsistent with the DEP's manure storage facility regulations; to require the development of Operation and Maintenance Plans as part of the design for proposed BMPs; to establish animal concentration area (barnyards, feedlots, exercise areas, and the like) criteria to protect surface waters from polluted runoff; and to require the plan to include a description of any proposed

manure storage facilities planned to be constructed on the operation including any alternative manure technology practices or equipment.

§ 83.422 (relating to site specific emergency response plans)

This section is added to require the development and implementation of a full-farm emergency response plan to address any possible accidental releases of manure to the environment. A copy of the emergency response plan is required to be kept onsite and is not required to be submitted with the NMP. The NMP is to include a verification from the planner that this emergency response plan is developed and available at the operation. This section establishes that manure storage contingency plans (as required under § 83.461 (relating to minimum standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities)) are required as an appendix to the emergency response plan.

§ 83.431 (relating to stormwater runoff control)

The word "runoff" is deleted from this section because the term "stormwater" is defined as runoff water. Language is added to require the development of an Operation and Maintenance Plan as part of the design for proposed BMPs. Language is added to require the NMP to include a verification that a current Erosion and Sedimentation Control Plan (or conservation plan) exists for the plowed and tilled croplands included in the NMP. This new requirement is closely tied to the addition of phosphorus as a consideration in nutrient management planning, due to the runoff transport mechanisms which play a major role in phosphorus losses to streams and which are addressed in conservation plans. Finally, the animal concentration area language is moved from this section to § 83.421.

§ 83.452 (relating to recordkeeping relating to application of nutrients)

Language is added to require soil testing every 3 years and manure testing annually for each manure group. Revised language requires dates of manure application, rather than months of application. Language is added to require records to be kept of the time animals are on pastures.

§ 83.453 (relating to alternative manure utilization recordkeeping)

This section is completely rewritten to allow for a more detailed tracking of manure exported from VAOs. The new language in the VAO section mirrors that used in the CAO section. The new language will require VAOs exporting manure to utilize Manure Export Sheets to document manure transfers and require VAOs to keep records of actual application methods, locations and rates where they, or their employee or contracted agent, apply the manure at the importing site. Language is added to indicate that when manure is exported to a broker, the broker is responsible for recordkeeping requirements.

§ 83.454 (relating to exported manure information packets)

This section is added for VAOs and it again mirrors the language used in the CAO section. This language is added to ensure that operators importing manure from VAOs have the information relevant to them for the proper handling and application of the manure they are importing.

§ 83.461

Language is added: to ensure that manure storage facilities built as part of an approved NMP are completed in compliance with § 91.36; to require the submission of an engineer's verification at least 2 weeks prior to the construction of a new storage facility or repair of an existing facility; and to ensure that the design and location of the facility is in compliance with applicable program standards.

§ 83.471 (relating to initial plan review and approval)

The authority for the Commission or conservation district to "modify" a plan is deleted. Language is added to require notification to the operator indicating the result of the 10-day completeness review.

§ 83.472 (relating to plan implementation)

Language is added to: clarify that approved nutrient application rates are to be carried out upon approval of the plan; and to clarify conditions under which plan implementation can be extended past the 3-year limit.

§ 83.481 (relating to plan amendments)

Language is added to require a plan amendment when exporting arrangements change unless it is for the loss of an importer who will not affect the VAOs ability to manage the manure generated onsite. Language is added to require an amendment: when new organic nutrient sources will be used on the operation; if additional lands are bought or leased for the operation; and if a change in the manure management system is expected to result in a significant change in the manure nutrient content. Language is added to address nonsignificant changes on the operation that require the plan to be updated to reflect current conditions, but do not require a formal plan amendment.

§ 83.491 (relating to manure management in emergency situations)

Language is added to subsection (g) requiring soil tests to be taken annually for 3 consecutive years if manure has been over applied to an area in response to an emergency situation.

*F. Benefits, Costs and Paperwork**Benefits*

The intended result of the proposed rulemaking is to strengthen the Commonwealth's current efforts to oversee CAO farms and farmers voluntarily complying with established nutrient management regulations to further protect this Commonwealth's water quality. The proposed rulemaking is necessary to address the Commission's expanded understanding of various program-related issues brought to the Commission's attention through the study of recent research efforts regarding water quality protection, and over 5 years of experience working with this innovative regulatory initiative.

The proposed rulemaking will provide for increased protection of water quality in this Commonwealth through an increased safeguard over phosphorus losses from agricultural operations and the application of manure on importing sites. These are the two major issues of concern that have been expressed to the Commission in the implementation of the current program.

The Commission, in cooperation and coordination with its program partners, has developed the proposed rulemaking after much deliberation and scientific study. The proposed rulemaking is scientifically based and developed to maximize water quality improvement while minimizing

possible negative impact on the regulated community. The proposed rulemaking is key to ensuring that the Commonwealth has an effective program in addressing nutrient losses and allow the State program to meet the new Federal CAFO regulations recently imposed by the Environmental Protection Agency.

The Commonwealth has worked hard over the past 5 years to ensure that the nutrient management planning standards developed through the act can be used as the singular plan format to meet all nutrient management planning requirements, both Federal and State. The proposed rulemaking is necessary to ensure we can continue to support the act plan format as one format in this Commonwealth for all farmers required to plan. Farmers benefit from this coordination of effort and standards which the proposed rulemaking allows. Farmers also benefit from the many hours of work the Commission and the Advisory Board have invested in developing a program which can advance efforts in water quality protection, but do so in a way that is practical for the industry to meet.

All citizens in this Commonwealth will benefit from the increase environmental protection the proposed rulemaking will provide. All water resources in rural and urban communities will be protected for recreational, industrial, municipal, individual and agricultural use. Tourism is a major industry in this Commonwealth and many elements of tourism are dependent upon high quality water resources. The cost of purification of surface and groundwater by water users and suppliers should decrease as these increased water protection efforts are initiated.

Costs

The proposed rulemaking will result in a cost increase for the development of plans required under the act. These cost increases are not easily quantified at this point but are expected to be in the range of approximately 50% over the current cost to develop a plan. The average cost over the past 18 months for developing an NMP meeting the current regulations is \$938. This increase will be especially true for those farms that have a significant number of farms importing manure from the planned farm. Farm operators can avoid consultant planning costs altogether by becoming individually certified to write their own NMPs.

The proposed rulemaking is not expected to increase the cost to install individual BMPs, but the revised plans may indicate an increase in the number of erosion control practices to be installed on some participating farms to address the phosphorus index portion of the plan. The increased costs are not expected to be significantly more than the costs the farmers would incur to implement their Erosion and Sedimentation Control Plan for the farm, as required in Chapter 102 (relating to erosion control). The increased costs of implementing the plan will not be required on all farms participating in the program and are most likely to be needed on farms that have not kept current with their erosion control efforts on the farm.

The proposed rulemaking may require some farmers to begin exporting manure, or increase manure exports under the proposed rulemaking as a result of the phosphorus indexing which may determine some lands as not suitable for manure applications because of a high likelihood of phosphorus applied to those areas reaching surface water. The impact of this requirement is difficult at best to quantify at this time because exporting the

manure may result in increased operational costs for the producer, or the exporting of manure may not impose any increased costs on the producer due to their ability to market the manure. There are operations from which the exported manure serves as an additional revenue source for the farm due to its marketable qualities.

The proposed rulemaking calls for manure haulers, applicators and brokers to meet certain testing and training provisions of the regulations to handle manure from a farm with an approved NMP. This will require commercial entities to spend some time resources to go through an accreditation process approved by the Commission's to demonstrate their knowledge and ability to handle manure properly. Commercial manure handlers see the benefit of these credentials. Over 90 haulers and brokers Statewide have already gone through a similar process on a voluntary basis. Also, the proposed rulemaking calls for these individuals to keep records and even develop nutrient balance sheets in certain instances. These steps will serve as documentation for these manure handlers to demonstrate that they are properly handling manure, a key benefit to these haulers and brokers of meeting the objectives of this process.

The proposed rulemaking calls for the inclusion of all high-density livestock operations into this program, with the exception of those having less than eight AEUs on the operation. This program revision will bring some new operations into the program (mainly larger horse operations) and will eliminate some very small-scale operations currently falling under the CAO designation. The net result of this is expected to be an increase in the number of farms required to plan under the act. This is considered to be necessary to address all animal operations of a significant scale (those not falling into the hobby farm size of less than eight AEUs) which, due to their limited amount of land available to apply manure when compared to the amount of manure they generate, have a potential to cause a negative effect on the environmental quality of waters in this Commonwealth.

There will be increased program expenses necessary to carry out the proposed rulemaking. The delegated conservation districts will have an increased workload in the review of the expanded scope of the plans called for under the proposed rulemaking. Due to the proposed rulemaking, more farmers are expected to fall within the CAO designation and conservation districts will have more farms to oversee at the local level. Current funding level support to conservation districts is \$1.78 million per year, funding needs for the conservation districts to administer the program under the proposed rulemaking is expected to be \$2.5 million.

The Commission is planning to offer increased financial assistance to farmers to help offset the expected increased planning costs. This will be done through the successful Plan Development Incentives Program as afforded through the proposed rulemaking. Also, the Commission is expecting to continue its Nutrient Management Plan Implementation Grants Program to assist farmers in installing BMPs needed to implement their approved plans. An expanded element of this assistance to farmers is likely to be the Commission's initiative to fund technological advances on farm sites, or combinations of farm sites, to assist farmers in installing practices to further process manure for those farmers challenged to find conventional application sites for their manure.

Overall, the Commission and the Advisory Board have been very deliberate in the development of additional program requirements in the proposed rulemaking to

ensure that the additional steps afforded through the proposed rulemaking are necessary and reasonable for the agricultural community to afford and implement. The proposed rulemaking is a necessary step for the Commission to take to ensure water quality is protected. The proposed rulemaking is developed to ensure the maximum benefit with minimum expense to the regulated community and the public sector.

Paperwork Requirements

The proposed rulemaking minimizes paperwork to the maximum extent but still maintains program integrity and tracking. Farmers are required to keep records, BMP designs, emergency response plans and erosion and sedimentation control plans on their farm, but are not required to submit those documents for Commission or conservation district filing. The program relies on the conservation district onsite plan review visits and annual status reviews to confirm proper documentation and to ensure that proper application and export efforts are implemented on farms with approved plans. The revisions reduce the amount of paperwork required by the operator to be submitted for program files by eliminating the need for the CAOs to submit exporting records for the program files where they are exporting for non-land application uses. The program does recognize the importance of good record keeping for the protection of water quality and the implementation of the limited liability clause of the act. The program requires these necessary records but does not require them to be submitted for inclusion in the program files, but they are reviewed annually with the operator during the program's annual onsite status review.

G. Sunset Review

The Commission will evaluate the effectiveness of the proposed rulemaking, as it has done for the existing regulations, on an ongoing basis. Therefore, no sunset date is being established for the regulations.

H. Regulatory Review

Commission

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on July 28, 2004, the Commission submitted a copy of this proposed rulemaking and a copy of a Regulatory Analysis Form to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the House Committee and the Senate Agriculture and Rural Affairs Committee. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed rulemaking within 30 days of the close of the public comment period. The comments, recommendations or objections shall specify the regulatory review criteria which have not been met. The Regulatory Review Act specifies detailed procedures for review, prior to final publication of the rulemaking, by the Commission, the General Assembly and the Governor of comments, recommendations or objections raised.

I. Public Comment

Written comments—Interested persons are invited to submit comments, suggestions or objections regarding the proposed rulemaking to the State Conservation Commission, Agriculture Building, Room 405, 2301 North Cameron Street, Harrisburg, PA 17110. Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Commission within 90 days of publication in the *Pennsylvania*

Bulletin. Interested persons may also submit a summary of their comments to the Commission. The summary may not exceed one page in length and must also be received within 90 days following publication in the *Pennsylvania Bulletin*. The one-page summary will be provided to each member of the Commission in the agenda packet distributed prior to the meeting at which the final-form rulemaking will be considered.

Electronic Comments—Comments may be submitted electronically to the Commission at ag-sccstate.pa.us. A subject heading of the proposal must be included in each transmission. Comments submitted electronically must also be received by the Commission within 90 days following publication of the proposed rulemaking.

J. Public Meetings and Hearings

The Commission will hold two public informational meetings on this proposed rulemaking. The meetings will be held from 7 p.m. to 9 p.m. and will include time for questions from the audience.

The Commission will hold two public hearings for the purpose of accepting comments on this proposed rulemaking on October 13, 2004, at the Holiday Inn, 5401 Carlisle Pike Mechanicsburg, and on October 14, 2004, at the Ramada Inn, 191 United Road, Dubois. These hearings will begin at 6 p.m.

A complete announcement of the meetings and hearings will be published in the *Pennsylvania Bulletin* when arrangements are finalized.

Persons wishing to present testimony at a public hearing should contact Douglas Goodlander, State Conservation Commission, Agriculture Building, Room 405, 2301 North Cameron Street, Harrisburg, PA 17110, (717) 787-8821 at least 1 week in advance of the hearing to reserve a time to present testimony. Oral testimony is limited to 5 minutes for each witness. Witnesses are requested to submit three written copies of their oral testimony to the hearing chairperson. Organizations are limited to designating one witness to present testimony on their behalf at each hearing.

Persons with a disability who wish to attend a hearing or meeting and require an auxiliary aid, service or other accommodation to participate should contact Douglas Goodlander at (717) 787-8821 or through the Pennsylvania AT&T Relay Service at (800) 654-5984 (TDD users) or (800) 654-5988 (voice users) to discuss how the Commission may accommodate their needs.

DENNIS C WOLFF,
Chairperson

Fiscal Note: 7-390. (1) Nutrient Management Fund;

- (2) Implementing Year 2003-04 is
- (3) 1st Succeeding Year 2004-05 is
- 2nd Succeeding Year 2005-06 is
- 3rd Succeeding Year 2006-07 is
- 4th Succeeding Year 2007-08 is
- 5th Succeeding Year 2008-09 is
- (4) 2002-03 Program—
- 2001-02 Program—
- 2000-01 Program—
- (8) recommends adoption.

	<i>Education, Research and Technical Assistance</i>	<i>Planning, Loans, Grants and Technical Assistance</i>	<i>Nutrient Management— Administration</i>
	\$0	\$0	\$0
	\$400,000	\$75,000	\$60,000
	\$800,000	\$710,000	\$120,000
	\$800,000	\$875,000	\$120,000
	\$800,000	\$945,000	\$120,000
	\$800,000	\$770,000	\$120,000
	\$1,245,000	\$4,136,000	\$248,000
	\$1,265,000	\$6,687,000	\$197,000
	\$1,190,000	\$3,029,000	\$0

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

Subpart C. PROTECTION OF NATURAL RESOURCES

ARTICLE I. LAND RESOURCES

CHAPTER 83. STATE CONSERVATION COMMISSION

Subchapter D. NUTRIENT MANAGEMENT

GENERAL PROVISIONS

§ 83.201. Definitions.

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise:

* * * * *

BMP—Best management practice—A practice or combination of practices determined by the Commission to be effective and practicable (given technological, economic and institutional considerations) to manage nutrients to protect surface water and groundwater taking into ac-

count applicable nutrient requirements for crop utilization. [**The term includes, but is not limited to:**

- (i) **Conservation tillage.**
- (ii) **Crop rotation.**
- (iii) **Soil testing.**
- (iv) **Manure testing.**
- (v) **Diversions.**
- (vi) **Manure storage facilities.**
- (vii) **Stormwater management practices.**
- (viii) **Nutrient application.]**

CAO—Concentrated animal operation—Agricultural operations with **eight or more animal equivalent units** where the animal density exceeds two AEU's per acre on an annualized basis.

* * * * *

Concentrated water flow areas—[**Those natural**] **Natural** or manmade areas where stormwater runoff is channeled and conveyed directly to [**a**] surface water [**body**] or groundwater. The term includes, but is not limited to, ditches, waterways, gullies and swales.

* * * * *

Conservation Plan—A plan that identifies conservation practices and includes site-specific BMPs which minimize the potential for accelerated erosion and sediment from agricultural plowing or tilling activities, and which contains:

(i) BMPs for agricultural plowing and tilling activities, including soil loss tolerance values (T), identified in the Pennsylvania Technical Guide.

(ii) A schedule for the implementation of the BMPs.

* * * * *

Critical runoff problem areas—[Those nonvegetated] Nonvegetated concentrated water flow areas directly discharging into surface water [bodies] or groundwater, and [those] areas where runoff containing nutrients that were applied after the growing season discharge directly into surface water or groundwater. The term includes gullies and unprotected ditches.

Crop [group] management unit—[A crop field or group of crop fields that are planted to the same crop, managed as a unit, have similar levels of residual nutrients and will produce similar crop yields.] The portion of cropland, hayland and pasture, including a field, a portion of a field, or group of fields, on an agricultural operation that has a unique management history (same rotation and manure history), similar production capability, and that will be managed uniformly as a distinct unit.

Department—The Department of Environmental Protection.

Erosion and Sediment Control Plan—A site-specific plan identifying BMPs to minimize accelerated erosion and sedimentation. An Erosion and Sediment Control Plan under Chapter 102 (relating to erosion control), required for plowing and tilling activities, may be that portion of a Conservation Plan identifying BMPs to minimize erosion and sedimentation.

Existing agricultural operation—For the sole purpose of determining the eligibility for the Nutrient Management Plan Implementation Grants Program established under the act, an existing operation is an agricultural operation producing crops, livestock or poultry as of _____ (*Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.*), where the focus of the operation has not changed since _____ (*Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.*). A change in focus includes a significant increase in the scope or magnitude of the operation as well as the inclusion of a new livestock type on the operation.

Farming resources—The animals, facilities and lands used for the production of crops, livestock or poultry. The lands are limited to those located at the animal production facility which are owned, rented or leased by the operator of the facility, and other owned, rented or leased lands [under agreement or] under the management control of the operator of the facility that are [an integral part of the production of crops, livestock or poultry and the associated management] used for the application, treatment or storage of nutrients generated [by the animal production] at the facility.

* * * * *

In-field stacking—The practice of stacking solid manure on unimproved cropland areas to be applied to the land as plant nutrients.

Livestock—

(i) Animals raised, stabled, fed or maintained on an agricultural operation with the purpose of generating income or providing work, recreation or transportation. Examples include: dairy cows, beef cattle, goats, sheep, swine and horses.

(ii) The term does not include aquatic species.

Manure Management Manual—The guidance manual published by the Department that is entitled "Manure Management Manual for Environmental Protection," [and] including its supplements [developed by an interagency workgroup and published by the Department] and amendments. The manual describes approved manure management practices for [which a permit or approval from the Department is not required as set forth in § 101.8] all agricultural operations as required by § 91.36 (relating to pollution control and prevention [from] at agricultural operations).

Manure group—A portion of the manure generated on the operation that is distinct due to factors including species, handling practices, storage location, manure consistency, anticipated nutrient content or application season.

Manure storage facility—

(i) A permanent structure or facility, or portion of a structure or facility, utilized for the primary purpose of containing manure. [The storage facility of a waste management system is the tool that gives the manager control over the scheduling and timing of the spreading or export of manure.]

(ii) Examples include: liquid manure structures, manure storage ponds, component reception pits and transfer pipes, containment structures built under a confinement building, permanent stacking and composting facilities and manure treatment facilities.

(iii) The term does not include the animal confinement areas of poultry houses, horse stalls, freestall barns or bedded pack animal housing systems.

* * * * *

Nutrient—A substance or recognized plant nutrient, element or compound which is used or sold for its plant nutritive content or its claimed nutritive value. The term includes, but is not limited to, livestock and poultry manures, compost as fertilizer, commercially manufactured chemical fertilizers, [sewage sludge] biosolids or combinations thereof.

Nutrient balance sheet—A crop management tool developed to protect and maintain water quality by providing the calculation for determining the amount of manure that can be applied to cropland, hayland and pasture, to meet the nitrogen needs of a given crop management unit, using procedures acceptable to the Commission. The nutrient balance sheet takes into account the type and yield of crop to be grown, the residual nitrogen from various nutrient sources and any planned chemical fertilizer applications.

Nutrient management specialist or specialist—A person satisfying the requirements of the Department of

Agriculture's Nutrient Management Certification Program in 7 Pa. Code §§ 130b.1—130b.51 (relating to nutrient management certification).

Pastures—Crop areas managed for forage production that are harvested by livestock or livestock and haying and where animal management practices [**assure**] **ensure** that [**uncollected**] manure nutrients [**are limited to**] **deposited by livestock does not exceed** the amounts utilized by the crop.

Pennsylvania Agronomy Guide—The [**quick**] reference book published by [**the**] Cooperative Extension and **updated periodically, used** as a practical guide to grain and forage production, soil fertility management, pest management and erosion control, with special reference to Pennsylvania conditions.

Pennsylvania Soil and Water Conservation Technical Guide—Pennsylvania Technical Guide—A primary reference document published by the United States Department of Agriculture's NRCS, which is used by technically trained persons to plan and apply appropriate BMPs.

Perennial stream—A body of water [**that normally flows year-round**] **flowing** in a [**defined**] channel or bed[,] **composed primarily of substrates associated with flowing waters** and [**is**] capable, in the absence of pollution or other manmade stream disturbances, of supporting bottom dwelling aquatic animals.

* * * * *

Phosphorus Index—The field evaluation tool developed specifically for this Commonwealth and approved by the Commission, which combines indicators of phosphorus sources and phosphorus transport, to identify areas that have a high vulnerability or risk of phosphorus loss to surface waters, and provides direction on the land application of phosphorus-containing nutrient sources to protect water quality.

Plan—nutrient management plan—

(i) A written site-specific plan which [**incorporates BMPs to manage the use of plant nutrients for crop production and water quality protection consistent with the criteria**] **meets the requirements** in sections 4 and 6 of the act (3 P. S. §§ 1704 and 1706), and in §§ 83.271, 83.272 and 83.281—83.331 for CAOs [**or**] and §§ 83.271, 83.272 and 83.391—83.441 for [**non-CAOs planning under the act**] VAOs.

(ii) **The term includes plan amendments required under §§ 83.371, 83.372, 83.481 and 83.482.**

Spring—A place where groundwater flows naturally from rock or soil onto the land surface [**or into a surface water body,**] for a total of 183 days or more per year.

Stormwater—Runoff from the surface of the land resulting from rain, [**or**] snow or ice melt.

Surface water [and groundwater]—[**All rivers, streams, creeks, rivulets, impoundments, ditches, water courses, storm sewers, lakes, dammed water, ponds, springs and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this Commonwealth.**] **Perennial and intermittent streams, rivers, lakes, res-**

ervoirs, ponds, wetlands, springs, natural seeps and estuaries, excluding water at facilities approved for wastewater treatment such as wastewater treatment impoundments, cooling water ponds and constructed wetlands used as part of a wastewater treatment process.

Temporary manure stacking areas—Unimproved areas[, preferably located in crop fields,] that are [**planned**] **authorized** to be used [**in unforeseen circumstances**] for the storage of solid manure to be [**used**] **applied to the land as plant nutrients** during the next growing season, or for other acceptable uses, **except that these areas are only used as a contingency measure to address situations where the approved manure handling practice as described in the plan is not able to address the generated manure due to unforeseen circumstances.**

VAO—Voluntary agricultural operation—

(i) **Any operation not specifically required under the act or this chapter to submit and implement a nutrient management plan meeting the criteria established in this subchapter.**

(ii) **The term includes agricultural operations applying for financial assistance under the act.**

§ 83.202. Scope.

This subchapter specifies minimum criteria and requirements for:

(1) **Nutrient management plans required under the act for CAOs or other agricultural operations directed by the Commission or the Department to follow the CAO criteria established under the act.**

(2) [**Voluntary nutrient management plans developed on other agricultural operations and submitted to the Commission or delegated conservation district for approval under the act**] **Nutrient management plans submitted by VAOs.**

(3) [**Plans on other agricultural operations receiving financial assistance under the act or under the Chesapeake Bay Nonpoint Source Pollution Abatement Program.**

(4) **Compliance plans submitted by an agricultural operation found to be in violation of The Clean Streams Law (35 P. S. §§ 691.1—691.1001).**

(5) [**The construction, location, [storage capacity] design, installation and operation of animal manure storage facilities [constructed and existing facilities expanded or repaired as part of a plan developed under the act] on agricultural operations subject to the act.**

[(6)] (4) * * *

[(7)] (5) * * *

[(8)] (6) * * *

§ 83.204. Applicability of requirements.

(a) **CAOs required under the act, or other operations directed by the Commission or the Department to submit and implement a plan [under the act], shall [refer to] comply with the following sections [for applicable requirements]: §§ 83.261 and 83.271—83.381.**

(b) [Agricultural operations that plan voluntarily under the act or as a condition of receiving financial assistance under the act or the Chesapeake Bay Non-point Source Pollution Abatement Program,] VAOs shall [refer to] comply with the following sections [for applicable requirements: §§ 83.261, 83.271, 83.272 and 83.391—83.491.

§ 83.205. Preemption of local ordinances.

* * * * *

(b) After October 1, 1997, no ordinance or regulation of any political subdivision or home rule municipality may prohibit or in any way regulate practices related to the storage, handling or land application of animal manure or nutrients or to the construction, location or operation of facilities used for storage of animal manure or nutrients or practices otherwise regulated by the act or this subchapter if the municipal ordinance is in conflict with [the requirements of] the act and this subchapter.

(c) Nothing in the act or this subchapter prevents a political subdivision or home rule municipality from adopting and enforcing ordinances or regulations which are consistent with and no more stringent than the requirements of the act and this subchapter.

* * * * *

PLAN DEVELOPMENT INCENTIVES PROGRAM

§ 83.211. Applicant eligibility.

* * * * *

(b) [Only agricultural] Agricultural operations that were producing crops, livestock or poultry as of [October 1, 1997] _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.), and are or will be producing or utilizing livestock or poultry manure or both on their operation, are eligible to receive funding under this program.

(c) [For the time period of October 1, 1997, to September 30, 1998, only CAOs are eligible to receive funding under this program.] CAOs that are in violation, as determined by the Commission, of the plan submission requirements or any other requirements of the act are not eligible for funding under this program.

(d) Agricultural operations having an approved plan prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) that are in compliance with that plan and the act are eligible to receive funding to amend the plan to meet the requirements of this revised subchapter.

§ 83.213. Application prioritization criteria.

[(a) Only CAOs are eligible for funding from this program for the time period of October 1, 1997, to September 30, 1998.

(b) After September 30, 1998, the] The distribution of funding shall be provided to the extent funds are available based on the following prioritization:

(1) Agricultural operations newly classified as CAOs due to the revised criteria established in this subchapter.

(2) CAOs amending a plan approved prior to _____ (Editor's Note: The blank refers to the

effective date of adoption of this proposed rulemaking.) to conform with the revised program criteria.

(3) CAOs coming into existence after [October 1, 1997] _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.), due to loss of rented acres.

[(2) Non-CAOs volunteering to comply with the act] (4) VAOs amending a plan approved prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) to conform with the revised program criteria.

[(3) CAOs in existence before October 1, 1997] (5) VAOs submitting a plan under the act.

[(4)] (6) Other CAOs coming into existence after [October 1, 1997] _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.).

§ 83.214. Eligible costs.

(a) Eligible costs considered by the Commission are those fees incurred by the development of the initial plan or the amendment of a plan approved prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) to conform with the revised program criteria.

(b) [Only those] Costs of soil and manure tests [costs included in the service fee charged] (not including labor costs) for initial plan development, or for developing the amended plan as described in subsection (a), are eligible for reimbursement.

§ 83.215. Funding limitations.

* * * * *

(b) Funding under this program will be limited to a one-time reimbursement payment for initial plan development costs incurred after the operator's application has been approved, and as a one-time reimbursement payment for a plan amendment of a plan approved prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) to conform with the revised program criteria.

* * * * *

FINANCIAL ASSISTANCE

§ 83.221. Applicant eligibility.

(a) An owner or operator of an existing agricultural operation [existing as of October 1, 1997], may apply for financial assistance for the implementation of plans developed under the act. The owner or operator shall have legal and financial responsibility for the agricultural operation during the term of the financial assistance provided by the Commission.

(b) Existing CAOs required to implement BMPs to conform with the revised criteria are eligible for financial assistance for the implementation of the BMPs.

(c) New agricultural operations coming into existence after _____ (Editor's Note: The blank refers to the effective date of adoption of this pro-

posed rulemaking.) are not eligible for financial assistance for the implementation of their approved plan.

(d) If the applicant is a lessee or operator, the applicant shall apply jointly with the owner of the agricultural operation for financial assistance. The [lessee or operator and] owner shall be [jointly] responsible for the repayment of financial assistance unless the agreement establishes the lessee or operator as having joint or principal responsibility.

(e) CAOs that were in violation of the plan submission requirements of the act prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) or are in violation of any other provision of the act, are not eligible for funding under this program.

(f) Existing agricultural operations expanding to become a CAO after _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) are not eligible for financial assistance for the implementation of their approved plan.

§ 83.222. Condition for receipt of financial assistance.

An agricultural operation approved to receive financial assistance under the Chesapeake Bay Nonpoint Source Pollution Abatement Program after [October 1, 1997] _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.), or otherwise receiving financial assistance under the act for plans, shall agree to develop and implement a plan as a condition for receiving the financial assistance.

§ 83.224. Project evaluation and prioritization criteria.

(a) Applications for financial assistance will be evaluated in accordance with project evaluation criteria guidelines developed by the Commission. [CAOs will receive priority evaluation from October 1, 1997, to September 30, 1998.]

(b) Applications for financial assistance will be prioritized for consideration as follows:

(1) CAOs in [existence on October 1, 1997, complying with the act and this subchapter] compliance with the act and properly implementing a plan approved prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) which, due to the revisions to the regulations, are required to implement additional practices to meet the new criteria.

(2) Agricultural operations newly classified as CAOs due to the revised criteria established in this subchapter.

(3) CAOs coming into existence after [October 1, 1997] _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.), due to loss of rented acres.

(4) VAOs having an approved plan as of (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.)

[(3) Non-CAOs] (5) Other VAOs with critical BMPs.

[(4)] (6) * * *

§ 83.225. Application procedure.

* * * * *

(b) An application received by the Commission or delegated agent will be reviewed for completeness and eligibility. An application shall include a [summary] copy of the approved plan which identifies the proposed BMPs for which financial assistance is being requested.

* * * * *

(d) [The Commission will approve or deny each application submitted.] Within [45] 60 days of receipt of all required information, applicants will be notified in writing of actions taken on their applications and [their] any right to appeal the actions.

* * * * *

§ 83.226. Eligible costs for the implementation of an approved plan.

* * * * *

(c) The Commission may consider alternative manure technology practices and equipment eligible to receive financial assistance under this chapter if these practices or equipment are considered to be effective in addressing nutrient management issues on the operation. Financial assistance funding levels and limitations for these alternative practices and equipment shall be established by the Commission.

§ 83.229. Grants.

* * * * *

(b) The Commission may limit individual grant awards to whatever amount it deems appropriate. The maximum amount of a grant may not exceed those maximum grant limits established by the Commission. An agricultural operation that has received or is approved to receive financial assistance under [the Chesapeake Bay Nonpoint Source Pollution Abatement Program is] any local, State, Federal or other financial assistance program may also be eligible for grants under the Nutrient Management [Financial Assistance] Plan Implementation Grant Program up to the grant limit established by the Commission in grants from those combined sources [of the Chesapeake Bay Program] and the Nutrient Management [Financial Assistance] Plan Implementation Grant Program.

* * * * *

§ 83.231. Funding limitations.

* * * * *

(e) Letters of no prejudice. Exceptions to the general prohibition against initiation of construction prior to consideration by the Commission may be made when immediate plan implementation is required to proceed before an application for financial assistance can be submitted to the Commission. Circumstances that would require immediate plan implementation and therefore appropriate for consideration by the Commission for a letter of no prejudice, shall relate to acute failures or malfunctions of practices where immediate implementation is necessary to address significant environmental degradation. In this case, a potential applicant may apply to the Commission for a letter of no prejudice wherein the Commission agrees to

consider a future application for financial assistance without limitation or prejudice even if project construction has begun at that time. If the Commission issues a letter of no prejudice, project construction can begin without jeopardizing or benefiting a future application.

§ 83.232. Implementation and reporting.

* * * * *

(b) Unless otherwise approved by the Commission, the applicant shall begin construction of the project, in accordance with its application within [6] 9 months [after] of the Commission sending notice of approval [by the Commission] of a grant application. If the applicant does not begin implementation within the specified time period [and], does not continue work without unreasonable interruption, or does not complete the project within the specified time period in the grant agreement, the financial assistance may be withdrawn by the Commission.

* * * * *

DELEGATION TO LOCAL AGENCIES

§ 83.241. Delegation to local agencies.

* * * * *

(d) A delegation agreement [shall] will:

* * * * *

NUTRIENT MANAGEMENT PLANS

§ 83.261. General.

[(a) A CAO in existence on October 1, 1997, shall submit to the Commission or a delegated conservation district, a plan by October 1, 1998.]

Agricultural operations shall meet the plan requirements of §§ 83.261—83.491 according to the following:

(1) Operations defined as a CAO prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.).

(i) For operations defined as CAOs operating as of October 1, 1997, a plan shall have been submitted prior to October 1, 1998.

(ii) For operations which were newly defined as a CAO due to expansion of operations prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.), a plan shall have been submitted within 3 months of the change in operations which classified them as a CAO.

(iii) For new operations defined as CAOs and commencing before _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.), a plan shall have been submitted prior to commencement of operations.

[(b) A CAO which comes into existence after October 1, 1997, shall submit to the Commission or a delegated conservation district a plan by January 1, 1998, or prior to the commencement of manure operations, whichever is later. It is recommended that the CAO submit the plan for review and approval prior to construction.] (2) Operations defined as a CAO after _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) who were not defined as

CAOs prior to that date. An existing agricultural operation as of _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) which did not meet the CAO definition prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) but which is defined as a CAO under this subchapter, shall submit a plan by _____ (Editor's Note: The blank refers to a date 2 years after the adoption of this proposed rulemaking.).

[(c) An agricultural operation which, because of expansion of animal units or loss of land suitable for manure application, meets the criteria for a CAO shall submit to the Commission or a delegated conservation district a plan within 3 months after the date of completion of the expansion or the loss of land. It is recommended that an operator who intends to expand an existing agricultural operation submit the plan for review and approval prior to expansion.] (3) Operations that become defined as CAOs after _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) due to expansion of an existing operation or loss of rented or leased land. Existing operations that make changes to their operations that result in becoming defined as CAOs for the first time, after _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.), shall meet the following:

(i) An agricultural operation which becomes a CAO after _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) due to loss of land suitable for manure application, shall submit a plan within 6 months after the date which the operation becomes a CAO.

(ii) An agricultural operation which will become a CAO due to expansion of operations by the addition of animals shall obtain approval of the plan prior to the expansion.

[(d) An agricultural operation other than a CAO may voluntarily submit a plan at any time after October 1, 1997. It is recommended that the operator of an agricultural operation voluntarily submitting a plan under the act, submit the plan for review and approval prior to construction, if construction activities are called for in the plan.] (4) New Operations. A new operation which will commence after _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.), and which will be a CAO, shall obtain approval of a plan meeting the requirements of this subchapter prior to the commencement of the operation.

(5) Revision of plans approved prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.). All operations (CAOs and VAOs) having an approved plan prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) shall comply with the following:

(i) CAOs shall submit an amended plan to incorporate the requirements included in this amended subchapter under the 3 year review requirement of

§ 83.362 (relating to plan implementation), or by _____ (*Editor's Note: The blank refers to a date 1 year after the effective date of adoption of this proposed rulemaking.*), whichever is later.

(ii) VAOs shall submit an amended plan on the same schedule as CAOs in subparagraph (i) if they desire to maintain their status as a VAO.

(iii) VAOs that received funding under this subchapter shall implement the approved plan and maintain the BMPs installed using that funding.

(6) The plan shall be submitted to the Commission or delegated conservation district by the operator who shall sign the plan.

[(e)] (7) Plans and plan amendments shall be developed by nutrient management specialists certified in accordance with the Department of Agriculture's Nutrient Management Specialist Certification requirements in 7 Pa. Code §§ 130b.1—130b.51 (relating to nutrient management certification). The specialists shall certify, by signature, that the plans are in accordance with the act and this subchapter. **Operators and specialists who sign plans may be subject to penalties for any false information contained in the plans.**

§ 83.262. Identification of CAOs.

(a) *Procedure.* To determine if a particular agricultural operation is a CAO [**which is required to develop a plan**], the number of AEUs per acre on the agricultural operation shall be calculated using the following procedure:

(1) The number of AEUs on the agricultural operation shall be calculated by using the following steps:

(i) [**Multiply**] Compute the animal weight on a typical production day for the agricultural operation by multiplying the average number of animals on the agricultural operation on a typical production day by the standard animal weight contained in [**Table A to equal a total weight**] *Agronomy Facts 54—Pennsylvania's Nutrient Management Act: Who Will Be Affected?*, published by the Pennsylvania State University. [**Nonstandard**] Other animal weights may be used in place of those in [**Table A**] *Agronomy Facts 54*, if there is sufficient documentation to support the use of the nonstandard weights. For those animal types not included in [**Table A**] *Agronomy Facts 54*, the average animal weight for the operation shall be used for this calculation, taking into account, if applicable, the range of animal weights throughout the production cycle of the animal.

(ii) [**Multiply**] Annualize the average animal weight per production day by multiplying the [**total**] animal weight [**reached**] on a typical production day derived in subparagraph (i) by the number of production days per year, then divide by 365 days.

(iii) [**Divide**] Compute the number of AEUs for the particular animal type by dividing the number [**reached**] derived in subparagraph (ii) by 1,000 [**to equal the number of AEUs for each type of animal**].

(iv) [**Total the number**] Compute the total AEUs for the operation by adding together the number of AEUs for each type of animal to equal the total number of AEUs on the agricultural operation.

(v) Operations having less than eight AEUs are not classified as CAOs regardless of the animal density.

[Table A

<i>Type of Animal</i>	<i>Standard Weight in Pounds During Production (Range)</i>
Swine	
Nursery Pig	30 (15—45)
Finishing Pig	145 (45—245)
Gestating Sow	400
Sow and Litter	470
Boar	450
Beef	
Calf 0—8 Mo.	300 (100—500)
Finishing 8—24 Mo.	850 (500—1,200)
Cow	1,150
Veal	
Calf 0—16 Wk.	250 (100—400)
Poultry	
Layer 18—65 Wk.	3.25 (2.75—3.76)
Layer 18—105 Wk.	3.48 weighted avg.
Layer Brown Egg 20—65 Wk.	4.3 (3.6—5)
Layer Brown Egg 20—105 Wk.	4.63 weighted avg.
Pullets 0—18 Wk.	1.42 (0.08—2.75)
Broiler, Lg. 0—57 Days	3.0 (0.09—5.9)
Broiler, Med. 0—43 Days	2.3 (0.09—4.5)
Roaster	
Male 0—8 Wk.	3.54 (0.09—7)
Female 0—10 Wk.	3.54 (0.09—7)
Turkey, Tom 0—18 Wk.	14.1 (0.12—28)
Turkey, Hen 0—14 Wk.	7.1 (0.12—14)
Duck 0—43 Days	3.56 (0.11—7)
Guinea 0—14 to 24 Wk.	1.9 (0.06—3.75)
Pheasant	
0—13 to 43 Wk.	1.53 (0.05—3)
Chukar	
0—13 to 43 Wk.	0.52 (0.04—1)
Quail	
0—13 to 43 Wk.	0.26 (0.02—0.5)
Dairy	
Holstein/Brown Swiss	
Cow	1,300
Heifer 1—2 Yr.	900 (650—1,150)
Calf 0—1 Yr.	375 (100—650)
Bull	1,500
Ayrshire/Guernsey	
Cow	1,100
Heifer 1—2 Yr.	800 (575—1,025)
Calf 0—1 Yr.	338 (100—575)
Bull	1,250
Jersey	
Cow	900
Heifer 1—2 Yr.	600 (400—800)
Calf 0—1 Yr.	225 (50—400)
Bull	1,000

<i>Type of Animal</i>	<i>Standard Weight in Pounds During Production (Range)</i>
Sheep	
Lamb 0—26 Wk.	50 (10—90)
Ewe	150
Ram	185
Goat	
Kid 0—10 Mo.	45 (5—85)
Doe	125
Buck	170
Horse	
Foal 0—6 Mo.	325 (125—625)
Yearling	750 (625—875)
Nondraft Breeds, Mature	1,000
Draft Breeds, Mature	1,700]

(2) [The] Compute the number of AEUs per acre [shall be calculated] by dividing the total number of AEUs by the total number of acres of land suitable for the application of manure [to equal the number of AEUs per acre].

(i) [Land suitable, for] For the sole purpose of determining whether an agricultural operation is a CAO, “land suitable for the application of manure” is considered to be land [in] under the management control of the operator, that meets the following criteria:

(A) The land is cropland, hayland or pastureland that is an integral part of the agricultural operation, as demonstrated by title, rental or lease agreements, crop records or information on a form provided by the Commission.

* * * * *

(ii) The term “land suitable for application of manure” does not include farmstead acres or forestland.

* * * * *

CONTENT REQUIREMENTS FOR ALL PLANS

§ 83.272. Content of plans.

(a) Plans developed for CAOs or other agricultural operations required by the Commission or the Department to plan under the act shall [, at a minimum,] comply with §§ 83.261 and 83.271—83.331.

(b) [A plan] Plans developed for [an agricultural operation under the act either voluntarily, or as a condition of receiving financial assistance under the act or the Chesapeake Bay Nonpoint Source Pollution Abatement Program] VAOs shall [, at a minimum,] comply with this section and §§ 83.261, 83.271 and 83.391—[38]83.441.

(c) A plan shall be organized to [correspond to the appropriate sections described] contain individual sections as referred to in subsections (a) and (b) as applicable. [A plan shall have a separate section for each of these sections.] The operator shall be [consulted during the preparation of all sections of] involved in the development of each section [of] included in the plan.

(d) The BMPs listed in the plan shall be consistent with the management practices listed in other relevant plans, such as [a conservation plan,] the Conservation Plan developed for the operation, unless otherwise [justified in writing by the planner to] approved by the Commission or delegated conservation district.

PLAN SUMMARY INFORMATION FOR CAO PLANS

§ 83.281. Identification of agricultural operations and acreage.

(a) *Agricultural operation identification sheet.* The plan shall include an agricultural operation identification sheet which shall include the following information:

(1) The operator name, address and telephone number.

(2) A brief description of the operation including:

(i) Animal types included on the operation.

(ii) General scope of the operation (general acreage of the cropland, hayland and pastures, and farmstead acres, and animal numbers for the various types of animals on the operation).

(iii) The crop rotation planned to be used on the operation.

(iv) The dimensions and capacity of any existing manure storage facilities on the operation.

(v) The capacity and practical application rates of manure application equipment that will be used on the operation, as applicable.

(3) The signature of the operator, which meets the signature requirements of the Commission, indicating the operator’s concurrence with the practices outlined in the plan.

[(3)] (4) * * *

[(4)] (5) The watersheds [of] in which the land included in the plan is located. The existence of any special protection waters, as identified in [§ 93.9] Chapter 93 (relating to [designated water uses and water quality criteria] water quality standards), shall also be noted.

[(5)] (6) The total acreage of the agricultural operation included in the plan. This acreage shall include:

(i) Lands located at or adjacent to the animal production facility, which are owned by the operator of the facility.

(ii) Other owned, rented or leased lands, under the management control of the operator of the facility, that are used for the application, treatment or storage of manure generated at the facility.

[(6)] (7) The total acreage of land of the agricultural operation on which nutrients shall be applied. The total acreage shall be separated into acres of owned land and acres of rented or leased land.

[(7)] (8) * * *

[(8)] (9) The name [and], nutrient management certification program identification number [,] and signature of the nutrient management specialist that prepared the plan, the date of plan preparation and the date of revisions, if any.

(b) **Maps and aerial photographs.** The plan shall include a topographic map drawn to scale identifying the lands included in the agricultural operation, and shall also contain maps or aerial photographs of sufficient scale which clearly identify:

* * * * *

(4) The identification of all soil types and slopes on the agricultural operation. An NRCS soil survey map with the soil identification legend [shall] will be sufficient to satisfy this requirement. These soil survey maps may be available at the county NRCS office or conservation district office.

(5) The location of areas where manure application [may be limited based on] is restricted under § 83.294[(5)] (f) (relating to nutrient application procedures).

(6) The location of proposed or existing structural BMPs, including manure storage facilities, on the operation.

(7) The location of proposed or existing temporary manure stacking areas or in-field stacking locations.

(c) **Phosphorus Index.** The plan shall include an appendix containing the completed Phosphorus Index spreadsheet or other similar information summary which shall list the individual source and transport factor values, as appropriate, and the final Phosphorus Index value, for each individual area evaluated on the operation, as required by the Phosphorus Index.

(d) **Agreements with importers and brokers.** The plan shall include an appendix containing signed exporter/importer and exporter/broker agreements, and nutrient balance sheets and associated maps, for operations where these documents are required under this subchapter.

§ 83.282. Summary of plan.

- (a) The plan shall contain a summary that includes:
- (1) A [chart] manure summary table listing:
 - (i) The total amount of manure planned to be generated on the operation annually.
 - (ii) The total amount of manure planned to be used on the operation annually.
 - (iii) The total amount of manure planned to be exported from the operation annually.
 - (2) [Nutrient] A nutrient application [rates by field or crop group] summary documenting the planned nutrient applications for each crop management unit listing:
 - (i) Acres.
 - (ii) Expected yield.
 - (iii) Nutrients applied as starter chemical fertilizer.
 - (iv) Planned manure application period.
 - (v) Planned manure application rate and type of manure to be applied.
 - (vi) Planned manure incorporation time.
 - (vii) Rate of other organic nutrient sources planned to be applied.

(viii) Other nutrients applied through chemical fertilizer.

(ix) Other comments or notes.

(3) [Procedures] General procedures and provisions for the utilization or proper disposal of excess manure.

(b) [Manure] The summary shall also reference manure management and storage practices, stormwater runoff control practices and other appropriate BMPs necessary to protect the quality of surface water and groundwater [shall be referenced in the summary].

NUTRIENT APPLICATION FOR CAO PLANS

§ 83.291. Determination of available nutrients.

(a) The plan shall [include the amount of] address each type of nutrient source [used] generated or planned to be used on the agricultural operation, including: manure, [sludges] biosolids, compost, [cover crops,] commercial fertilizers and other [nutrients that will be applied to the agricultural operation] nutrient sources.

(b) The amount and nutrient content of each manure [to be applied] group generated on the agricultural operation shall be [determined] documented in the plan as follows:

(1) [The plan shall include] List the average number of animals [of each animal type] for each manure group, on a typical production day, for the agricultural operation.

(2) [The] List the amount of manure [produced] generated and when it is available for [spreading] land application on the agricultural operation or for other planned uses. If actual manure production records are available for the operation, these records shall be used for determining the manure produced on the operation. If actual records of manure production do not exist for the operation, the amount of manure produced shall be calculated based on the average number of [AEU's] animal units on the agricultural operation [or actual production data], and the storage capacity of manure storage facilities, if present. Bedding, wash water, rain and runoff, when mixed with the manure, shall be included in determining the total volume of manure [to be applied] generated. The plan shall include the calculations or variables used for determining the amount of manure produced on the operation.

(3) Test the nutrient content of manure as follows:

(i) Analytical manure testing results shall be used in the development of the plan. These manure tests shall include an analysis of the percent solids, total nitrogen (as N), ammonium nitrogen (as NH₄-N), total phosphate (as P₂O₅), and total potash (as K₂O), for each manure group generated on the operation, and these analytical results shall be recorded in the plan. [For the preparation of the plan and plan amendments, it is recommended that the nutrient content of the manure be determined by] These manure analyses shall be performed using accepted manure sampling and chemical analysis methods as [outlined in the *Manure Management*

Manual, or the Pennsylvania Agronomy Guide] specified by the Commission.

(ii) [When sampling and analysis is not done, the nutrient management specialist] For newly proposed operations, and for manure groups on existing operations where sampling and analysis are not possible prior to initial plan development, the plan shall use either standard book values such as those contained in the [Manure Management Manual or the] Pennsylvania Agronomy Guide to determine the nutrient content of the manure[.], or analytical results from a similar facility using a like management scheme, as approved by the Commission or delegated conservation district. The nutrient content of the manure shall be recorded in the plan. Samples and chemical analysis of the manure generated on the operation shall be obtained within 1 year of implementation of the approved plan, and the requirements of § 83.371 (relating to plan amendments) shall be followed as applicable.

(iii) After approval of the initial plan, manure tests are required to be taken annually for each manure group generated on the operation.

(c) The nitrogen available from manure shall be based on the appropriate availability factors such as those contained in the [Manure Management Manual or the] Pennsylvania Agronomy Guide. The plan shall include the amount of nitrogen available in the manure, and the planned manure incorporation time used to determine the nitrogen available[, shall be included in the plan].

* * * * *

[(e) For the development of the initial plan, soil tests shall be required to represent the fields in the operation for phosphorus (P), potassium (K), soil pH and lime requirement using those procedures for the Northeastern United States, Bulletin # 493, published by the University of Delaware, or other Commission approved procedures. Soil tests conducted within the previous 3 years prior to submitting the initial plan are acceptable. After the approval of the initial plan, soil tests shall be required at least every 6 years from the date of the last test. Soil tests, or the results of the soil tests, are not required to be submitted with the plan, but shall be kept on record at the operation.]

§ 83.292. Determination of nutrients needed for crop production.

(a) The plan shall include the acreage and realistic expected crop yields for each crop [group] management unit.

(b) For the development of the initial plan, expected crop yields may not exceed those considered realistic for the soil type and climatic conditions, as set by the operator and the specialist, and approved by the Commission or delegated conservation district. If actual yield records are available during the development of the initial plan, the expected crop yields [may] shall be based on these records.

[(1)] (c) If after the first 3 years of implementing the plan, the yields do not average at least 80% of the planned expected yield, the plan shall be amended to be consistent with the documented yield levels unless suffi-

cient justification for the use of the higher yields is [provided in writing to] approved by the Commission or delegated conservation district. The amendment shall be submitted as required under §§ 83.361—83.371.

[(2) For] (d) When determining expected crop yields for [future] plan [updates and] amendments, expected crop yields shall be based on documented yield levels achieved for the operation. Expected crop yields higher than historically achieved may be used if the operator provides sufficient justification in writing to the Commission or delegated conservation district for the use of the higher yields [to the Commission or delegated conservation district].

(e) When developing the initial plan, soil tests shall be required for each crop management unit on the operation, to determine the level of phosphorus (as P), potassium (as K), and soil pH, as follows:

(1) Use those procedures recommended by Penn State and published in *Recommended Soil Testing Procedures for the Northeastern United States*, Bulletin # 493, published by the University of Delaware, or other Commission-approved procedures.

(2) Soil tests conducted within the previous 3 years prior to submitting the initial plan are acceptable.

(3) After the approval of the initial plan, soil tests are required for each crop management unit at least every 3 years from the date of the last test.

(4) The plan shall include soil test results for phosphorus (as P) in parts-per-million (ppm) as a component of the Phosphorus Index analysis for each crop management unit. Other soil test results are not required to be submitted with the plan, but shall be kept on record at the operation.

[(c)] (f) The plan shall include [a determination of] recommendations based on current soil tests for the amount of [nutrients] nitrogen (as total N) and phosphorus (as P2O5) necessary for achieving realistic expected crop yields.

[(d)] (g) The [Pennsylvania Agronomy Guide or Manure Management Manual may] procedures in the *Soil Test Recommendations Handbook For Agronomic Crops*, Penn State Agricultural Analytical Services Laboratory, shall be used when necessary to [assist in determining] determine or adjust the recommended amount of nutrients necessary [for achieving] to achieve realistic expected crop yields. Other methodologies for this adjustment may be used as approved by the Commission.

§ 83.293. Determination of nutrient application rates.

(a) [Nitrogen] Manure and other nutrient sources shall be applied [only in the amounts] so as not to exceed the amount of nitrogen necessary to achieve realistic expected crop yields or at a rate not exceeding [what] the amount of nitrogen the crop will utilize for an individual crop year.

(b) In addition to the nitrogen limitations described in subsection (a), applications of manure

and other nutrient sources shall also be limited as determined by the Phosphorus Index, as follows:

(i) Apply the Phosphorus Index on all areas of the agricultural operation where nutrients will be applied.

(ii) Implement the resulting management actions as provided through the Phosphorus Index on each crop management unit.

(c) The planned manure application rate shall be recorded in the plan. The planned manure application rate [may] shall be the lesser of any rate equal to or less than the balanced manure application rate based on nitrogen or the rate as determined by the Phosphorus Index.

(i) The balanced manure application rate based on nitrogen shall be determined by first subtracting the amount of available residual nitrogen and any other applied nitrogen, such as nitrogen applied in the starter fertilizer, from the amount of nitrogen necessary for realistic expected crop yields, and then dividing this by the available nitrogen content of the manure as determined by standard methods under § 83.291 (relating to determination of available nutrients).

(ii) The calculation or variables used for determining the balanced rates shall be recorded in the plan.

[(c)] (d) The plan shall include calculations for each crop management unit indicating the difference between the [recommended nitrogen] amount of nitrogen and phosphorus necessary for realistic expected crop yields under § 83.292 (relating to determination of nutrients needed for crop production) and the nitrogen and phosphorus applied through all planned nutrient sources, including, but not limited to, manure, [sludge] biosolids, starter fertilizer and other fertilizers, and residual nitrogen. [A deficit may be made up with supplemental nitrogen applications.] A nitrogen availability test may also be used to determine supplemental nitrogen needs.

§ 83.294. Nutrient application procedures.

[The plan shall include nutrient application procedures that meet the following criteria:

(1)] (a) Nutrients shall be uniformly applied to fields during times and conditions that will hold the nutrients in place for crop growth, and protect surface water and groundwater in accordance with the approved manure management practices as described in the *Manure Management Manual*.

[(2)] (b) * * *

[(3) Application] (c) Manure application rates and procedures shall be consistent with the capabilities, including capacity and calibration range, of available application equipment. For existing operations and any operation using a commercial manure applicator, the plan shall include the capacity and practical application rates, based on calibration of the existing equipment. For proposed operations not using a commercial custom manure applicator, or where this calibration is not feasible at planning time, the operator shall perform this application equipment calibration analysis prior to the first application of manure, or within 1 year of the facility beginning

operation, whichever is sooner, and this information shall be included in any necessary amendments to the plan.

[(4)] (d) If manure will be applied using an irrigation system, the following applies:

(1) Application rates for irrigated liquid manure [irrigation] shall be based on the lesser of [either the nutrient plan] the following:

(i) The planned application rates in gallons per acre determined in accordance with § 83.293 [(a) and (b)] (c) (relating to determination of nutrient application rates) [, or the rates].

(ii) The combination of the following:

(A) The liquid application rate in inches per hour determined to be within infiltration capabilities of the soil [such as those contained in the NRCS *Pennsylvania Irrigation Guide* or the Mid West Plan Service, *Livestock Waste Facilities Handbook*].

(B) The liquid application depth in inches not to exceed the soil's water holding capacity within the root zone or any restricting feature at the time of application.

(2) The liquid application rate and application depth shall be consistent with the current versions of Penn State Fact Sheets F254 through F257 as applicable to the type of irrigation system planned to be used on the operation, and the *NRAES-89 Liquid Manure Application System Design Manual*.

(e) If liquid or semisolid manure is planned to be applied at rates greater than 9,000 gallons per acre at any one application time, the rates and amounts shall be limited based on the infiltration rate and water holding capacity of the application areas as described in subsection (c). In these instances, the plan shall include the computations for the infiltration rates and water holding capacity of the various application areas, and these applications shall not be allowed to exceed either the determined infiltration rate or the water holding capacity of the application sites.

[(5)] (f) Manure may not be applied in the following situations:

* * * * *

(ii) Within 100 feet of active private drinking water sources such as wells and springs [, where surface water flow is toward the water source, unless the manure is mechanically incorporated within 24 hours of application].

(iii) Within 100 feet of an inactive open drinking water well, where surface water flow is toward the water well, unless the manure is mechanically incorporated within 24 hours of application.

[(iii)] (iv) * * *

[(iv)] (v) * * *

[(v)] (vi) * * *

[(vi)] (vii) Within 100 feet of streams, springs, lakes, ponds, intakes to agricultural drainage systems (such as in-field catch basins, and pipe outlet terraces), or other types of surface water conveyance, [where] if surface

water flow is toward the identified area, [when] and if soil is frozen, snow covered or saturated.

[(vii)] (viii) Within 200 feet of streams, springs, lakes, ponds, intakes to agricultural drainage systems (such as in-field catch basins, and pipe outlet terraces), or other types of surface water conveyance, [where] if surface water flow is toward the [identified area and where] surface water or conveyance, if the slope is greater than 8% as measured within the 200 feet, [during times when] and if the soil is frozen, snow covered or saturated.

(ix) On crop management units having less than 25% plant cover or crop residue at the time of manure application, unless:

(A) For fall applications, the crop management unit is planted to a cover crop in time to allow for appropriate growth (according to standards contained in the *Pennsylvania Technical Guide*).

(B) For applications in the spring or summer, the crop management unit is planted to a crop that growing season.

(C) For winter applications, the crop management unit is addressed under subsection (g).

(D) Other practices are implemented to protect surface water and groundwater, which are approved by the Commission and are consistent with the operator's Erosion and Sediment Control Plan.

[(6)] (g) If winter [spreading] application of manure is [anticipated] planned, the application procedures [for the winter spreading of manure] shall be described in the plan. The procedures described in the plan shall be consistent with those contained in the *Manure Management Manual*. [If procedures other than those in the *Manure Management Manual* are to be used, approval shall be obtained from the Department or a delegated conservation district.] The plan shall list all crop management units where winter application is anticipated or restricted, planned ground cover on the application sites, and what procedures shall be utilized for each crop management unit to protect the quality of surface water and groundwater.

(h) In-field stacking of dry manure as a part of manure application is permissible if the manure is land applied on the crop management unit prior to the beginning of the next growing season. If stacking occurs for a longer period, the stack area shall meet *Pennsylvania Technical Guide* standards for a waste stacking and handling pad. All in-field stacking areas shall be located, and stacks shall be shaped, to minimize water absorption and impacts from runoff in accordance with the criteria approved by the Commission.

(i) If a commercial manure applicator will be used for the application of the manure on the agricultural operation, the commercial applicator shall meet the requirements of § 83.301(a)(5) (relating to excess manure utilization plans for CAOs).

ALTERNATIVE USES FOR EXCESS MANURE FOR CAO PLANS

§ 83.301. Excess manure utilization plans for CAOs.

(a) [When] If manure will be exported [to] for use off the CAO at known [landowners or operators]

agricultural operations for agricultural land application, the [plan shall list] following apply:

(1) [The name and general location of the proposed importing agricultural operation.] The plan shall include signed agreements, on a form acceptable to the Commission, between the CAO and each importing operator agreeing to accept the manure from the exporting operation. If the importing operator will be applying manure on lands rented or leased to that importing operator, the agreement shall state that the importing operator has the authority to apply manure on the leased or rented lands.

(2) [The estimated number of acres available for spreading manure at each importing agricultural operation.] The importing operator is responsible for the proper handling and application of the imported manure accepted from an exporter, in accordance with the relevant nutrient balance sheet or the importer's nutrient management plan.

(3) [The estimated amount of manure to be exported annually to known landowners or operators for agricultural land application.] A CAO exporting manure shall also be responsible for the handling and application of the manure if the CAO, or an employee or contractor of the CAO, applies manure at the importing operation.

(4) [The estimated amount of manure that could be exported to each agricultural operation.] The plan shall include copies of nutrient balance sheets applicable to each crop management unit where the exported manure will be applied. These nutrient balance sheets for importing operations shall include a map identifying the areas where the imported manure will be applied and applicable manure application setbacks relevant to the site, including those identified in § 83.294 (relating to nutrient application procedures). Nutrient management plans implemented at the importing operations may be used to meet this requirement if they are attached to the plan.

(5) [The intended season of the manure transfer.] If the CAO will utilize a commercial manure hauler/applicator for the hauling or application of the exported manure, the plan shall list the name of the commercial hauler/applicator that will be used. Only those haulers/applicators that meet the following qualifications shall be acceptable in the plan.

(i) Demonstrates knowledge of regulatory requirements related to transport and application of manure, as applicable, through completion of training, testing, experience or other means acceptable to the Commission.

(ii) Has maintained a record of substantial compliance with regulatory requirements to ensure proper handling and application of manure, including this subchapter, as determined by the Commission.

(iii) Agrees to maintain records documenting compliance with this subchapter.

(iv) Meets any other requirements determined by the Commission to ensure the proper hauling and application of manure.

(6) The Commission may consider the requirements of paragraph (5) to be satisfied if the hauler or applicator is certified under either a certification program approved by the Commission or as required by statute.

(b) [When] If manure will be [transported] exported for use off of the CAO through a manure broker, the [plan shall list] following apply:

(1) [The broker's name] The plan shall include a signed agreement, on a form acceptable by the Commission, between the CAO exporting the manure and each broker agreeing to accept manure from the exporting operation. Brokers are responsible for the proper handling and storage (where applicable) of the manure accepted from the CAO. Only brokers that meet the following requirements shall be acceptable in the plan.

(i) Demonstrates knowledge of regulatory requirements related to transport and application of manure through completion of training, testing, experience or other means acceptable to the Commission.

(ii) Has maintained a record of substantial compliance with regulatory requirements, including this subchapter, as determined by the Commission.

(iii) Agrees to maintain records documenting compliance with this subchapter.

(iv) Meets any other requirements determined by the Commission to ensure the proper hauling and application of manure.

(2) [The estimated amount of manure the exporting agricultural operation will transfer through the broker annually.] The Commission may consider the requirements of paragraph (1) to be satisfied if the broker is certified under a certification program approved by the Commission or when required by statute.

(3) [The intended season for the manure transfer.] If the manure accepted by a broker will be applied to agricultural operations for crop production, the broker shall be responsible for the development of nutrient balance sheets for all crop management units where the manure will be applied. The nutrient balance sheets shall be retained by the broker and provided by the broker to the importing operation, for retention on the importing operation. Instead of developing nutrient balance sheets, the broker can ensure that an approved nutrient management plan exists for the importing sites.

(c) [When] If manure will be [transferred] exported for use off of the CAO to a known importer for use other than agricultural land application, the plan shall include the following information:

* * * * *

(2) A brief description of the planned use [of] for the imported manure.

(3) The [estimated] amount of manure the operator plans to [transfer] export to the importer annually.

(4) The [intended] planned season for the manure [transfer] export.

(5) A signed agreement between the CAO and each importing operation agreeing to accept the manure for this use, on a form acceptable by the Commission.

(d) [Where] If manure is to be processed or utilized on the CAO in a manner other than for agricultural land application, the plan shall briefly describe the planned use of the manure, including the [estimated] amount [expected] planned to be processed or utilized annually.

[(e) Plans for CAOs that come into existence after October 1, 1997, or agricultural operations newly classified as CAOs due to expansion after October 1, 1997, shall provide for the utilization of excess manure by meeting one of the following:

(1) Demonstrate agricultural land is available for application by providing the information as in subsection (a).

(2) Include written agreements with importers or brokers and follow subsection (b) or (c).

(3) If manure is to be used on the agricultural operation for purposes other than for land application, describe how the manure is to be processed or utilized as in subsection (d).

(f) Agricultural operations newly classified as CAOs due to the loss of land available for manure application, may use any of the manure utilization options described in this section.

(g) When] (e) If manure is to be [marketed from an existing agricultural operation] exported for use off of a CAO existing on October 1, 1997, by using an open advertising system and the importers cannot be identified at planning time, the following apply:

(1) The plan shall describe the proposed marketing scheme, including the estimated amount of manure [expected] planned to be marketed annually using an open advertising system.

(2) An operator may only utilize this method of exporting manure if the operator meets the manure broker requirements of subsection (b).

(3) The exporting CAO shall develop nutrient balance sheets for the importing operations, and provide them to the importing operator. These nutrient balance sheets shall be maintained by the exporting CAO, the importing operation and any manure hauler/applicator involved in the exporting of the manure. Nutrient management plans implemented at the importing operations may be used to meet this requirement if they are attached to the plan.

(f) The plan is not required to provide the specific plan details as provided in subsections (a)—(e) in these circumstances:

(1) If an importer receives less than the following amounts of manure from the CAO on an annual basis: 10 tons of solid poultry manure, 50 tons of solid nonpoultry manure, or 25,000 gallons of liquid manure. In these instances, the plan shall list the name and location of the importing operation, and when and how much manure will be exported to the importing operation, as well as the proposed usage of the imported manure.

(2) If small quantities of manure, not to exceed 2,000 pounds annually, are expected to be marketed to individuals. In these circumstances, the plan shall describe the total amount of manure planned to be marketed in this manner, and the intended use of the manure.

(g) The land application of manure exported from a CAO shall be restricted as follows:

(1) The exported manure may not be applied to land within 150 feet of surface waters, unless otherwise allowed under an approved nutrient management plan meeting the appropriate planning criteria established under this subchapter.

(2) Land application of all exported manure shall also comply with other applicable manure application setbacks under § 83.294 (relating to nutrient application procedures).

MANURE MANAGEMENT FOR CAO PLANS

§ 83.311. Manure management

(a) In the preparation of a plan, the nutrient management specialist[, or specialist in conjunction with other individuals with nutrient runoff control expertise such as NRCS or conservation district personnel,] shall perform a site visit to conduct a review of the adequacy of existing manure management practices to prevent surface water or groundwater pollution [under normal climatic conditions for the location] from storm events up to and including a 25-year, 24-hour storm intensity. The specialist may confer with NRCS, conservation district staff or others with expertise with nutrient runoff control. This review shall be documented in the plan and shall identify those conditions and areas where nutrients directly discharge, or have the potential to directly discharge, into surface water as a result of a storm event up to and including a 25-year, 24-hour storm intensity, due to inadequate manure management practices. For purposes of this review, direct discharges are any flows of stormwater contaminated with manure to surface waters without prior filtration or other treatment, such as grassed filter strips. Practices to be evaluated in this review include manure handling, collection, barnyard runoff control[,] and storage [and spreading] practices. Examples of inadequate manure management practices include the following:

(1) Manure, contaminated water or nutrients leaving manure storage or animal concentration areas, and discharging into surface water or groundwater.

(2) The uncontrolled flow of stormwater into, or across, manure storage facilities, [temporary] manure stacking areas [and] or animal concentration areas.

* * * * *

(6) Manure storage facilities which otherwise do not comply with § 91.36 (relating to pollution control and prevention at agricultural operations), the *Manure Management Manual* and the *Pennsylvania Technical Guide*.

(b) The plan shall address any existing inadequate manure management practices as follows:

(1) As part of a plan certification under § 83.261(g) (relating to general), the nutrient management special-

ist shall [assure] ensure that the review required under subsection (a) was undertaken in the preparation of the plan.

(2) The plan [will] shall contain [those BMPs that are necessary] a listing of inadequate manure management practices and related conditions and problem areas, and the BMPs planned to correct [identified water contamination sources and] them to protect surface water and groundwater.

(c) [During the implementation of the approved plan, the] The BMPs shall be selected, designed, constructed and maintained to meet the specifications contained in the *Manure Management Manual* and the *Pennsylvania Technical Guide*.

(d) The plan submitted for approval is not required to include BMP designs. During the implementation of the approved plan, the operator is responsible for obtaining the necessary BMP designs and associated Operation and Maintenance Plans to implement the BMPs listed in the approved plan[, and these]. The BMP designs and associated Operation and Maintenance Plans shall be kept on record by the operator as a supplement to the plan.

(e) Animal concentration areas shall be sized, located, implemented and managed to eliminate the direct discharge of polluted stormwater from these areas to surface water and groundwater, as described in the *Manure Management Manual* and the *Pennsylvania Technical Guide*, including the following requirements which shall be addressed in the plan:

(1) The size of animal concentration areas shall be minimized.

(2) These areas shall be located as to eliminate the direct discharge of polluted storm water from a storm event of up to and including a 25-year 24-hour storm intensity, except as allowed in paragraph (5).

(3) Accumulated manure on nonvegetated animal concentration areas shall be collected and land-applied to cropland, or exported from the operation, as described in the plan.

(4) These areas will be managed so as to minimize the amount of clean water entering the animal concentration area.

(5) Polluted stormwater from these areas will be managed and properly applied, stored or treated through an appropriate vegetative area or other suitable treatment process, which shall meet the requirements of this subchapter and the *Pennsylvania Technical Guide*, to eliminate the direct discharge of polluted storm water to surface waters or groundwater.

(6) Animal access to surface water in these areas shall be controlled.

[(c)] (f) The following BMPs [may be], as appropriate, shall be used if necessary, and shall be described in the plan, to protect water quality [and to control water in] by controlling storm water in the farmstead, including the manure storage and animal concentration areas:

(1) Manure storage facilities including permanent manure stacking areas. The construction of manure storage

facilities is not required unless necessary to protect surface water and groundwater as part of an integrated nutrient management system. **Nutrient management plans that require the construction of a manure storage facility shall describe the planned type, dimensions and capacity of the proposed facility, and the location of the proposed facility shall be identified on a plan map.**

(2) [Adequate collection of manure from animal concentration areas for utilization on cropland or for other acceptable uses.] Diversion of clean water from manure storage facilities and animal concentration areas, unless required for proper operation of an integrated nutrient management system.

(3) [Diversion of contaminated runoff within animal concentration areas to a storage, lagoon, collection basin, vegetated filter area, or another suitable site or facility.] Treatment or storage of stormwater contaminated through contact with manure in the manure storage or animal concentration areas.

(4) [Diversion or elimination of contaminated water sources unless required for proper operation of the manure management system.]

(5) [Temporary manure stacking areas, if they are located outside of concentrated water flow areas and areas where manure application is restricted or prohibited based on § 83.294[(5)] (e) (relating to nutrient application procedures).]

[(6)] (5) Other appropriate BMPs acceptable to the Commission, including those described in the *Manure Management Manual* and the *Pennsylvania Technical Guide*.

[(d)] (g) * * *

[(e)] (h) * * *

[(f)] (i) The siting, design and installation of manure storage facilities shall meet the requirements in § 83.351 (relating to minimum standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities) [and], the *Manure Management Manual* and the *Pennsylvania Technical Guide*, as they relate to water quality protection.

(j) If alternative manure technology practices and equipment are planned to address nutrient management issues related to the operation, the rationale for and expected benefit of the planned alternative practices and equipment shall be described in the plan.

§ 83.312. Site specific emergency response plans

(a) CAOs shall develop and implement a written site-specific emergency response plan addressing actions to be taken in the event of a discharge, leak or spill of materials containing manure. A copy of the plan shall be kept onsite at the operation. The emergency response plan shall contain information necessary to meet the notification requirements for reporting discharge, leak or spill events which would result in pollution or create a danger of pollution to surface water or groundwater contained in § 91.33 (relating to incidents causing or threatening pollution)

(b) In case of a discharge, leak or spill of materials containing manure related to the operation, the operator shall implement the emergency response plan developed for the operation. The operator shall comply with all notification and reporting requirements.

(c) The nutrient management plan shall contain a verification from a certified planner that an adequate written site-specific emergency response plan meeting the requirements of this section exists for the CAO.

(d) It is recommended that the operator provide a copy of the emergency response plan to the local emergency management agency that would assist during a major discharge, leak or spill event.

(e) A BMP-specific contingency plan as required by § 83.351 (relating to the minimum standards for the design, construction, location, operation, maintenance and removal of manure storage facilities shall be included as an addendum to the emergency response plan.

STORMWATER [RUNOFF] CONTROL FOR CAO PLANS

§ 83.321. Stormwater [runoff] control.

(a) [*Field runoff control*].

1] In the preparation of a plan, the nutrient management specialist[, or specialist in conjunction with other individuals with nutrient runoff control expertise such as NRCS or conservation district personnel,] shall conduct a review of the adequacy of existing [runoff] stormwater control practices on [fields,] croplands, haylands and pastures included in the plan to prevent surface and groundwater pollution. The specialist may confer with NRCS, conservation district staff or others with expertise with nutrient runoff control. This review shall be included in the plan and shall identify [those] critical runoff problem areas [where nutrients directly discharge into surface water or groundwater].

[(2)] (b) The plan shall contain a list of specific [runoff] stormwater control BMPs to address those critical runoff problem areas identified in the review required under [paragraph (1)] subsection (a). This list of [runoff] stormwater control BMPs may shall not be in conflict with other relevant plans developed for the operation, such as a current conservation plan, [developed for the operation,] unless otherwise [justified in writing by the planner to] approved by the Commission or delegated conservation district.

[(3)] (c) The plan submitted for approval is not required to include BMP designs. During the implementation of the approved plan, the operator is responsible for obtaining the necessary BMP designs and associated operation and maintenance plans to implement the BMPs listed in the approved plan, and these BMP designs and associated operation and maintenance plans shall be kept on record by the operator as a supplement to the plan.

[(4)] (d) BMPs listed in the plan to address critical runoff problem areas shall be selected, designed, installed, operated and maintained in accordance with the

practices and standards contained in the *Manure Management Manual* and the *Pennsylvania Technical Guide*.

[(5) Although an erosion and sedimentation control plan, meeting the requirements of Chapter 102 (relating to erosion and sediment control),] (e) The plan shall include a verification from the specialist developing the plan, indicating that a current Erosion and Sediment Control Plan, meeting the requirements of Chapter 102 (relating to erosion and sediment control), exists for all plowed or tilled croplands included in the plan. A current conservation plan may be used to meet this requirement, as allowed by Chapter 102. The Erosion and Sediment Control Plan is not required to be submitted as part of a nutrient management plan [under the act, meeting]. Compliance with the requirements of this section will not eliminate the operator's responsibility to comply with Chapter 102 or other relevant State laws or regulations relating to the control of erosion and sedimentation from [earth moving] construction activities [such as agricultural plowing and tilling].

[(6)] (f) For areas on land rented [land] or leased by the operator that have been identified as critical runoff problem areas which will require the installation of BMPs requiring construction activities, the operator shall do one of the following:

* * * * *

[(b) Animal concentration areas.

(1) The plan shall address stormwater runoff controls in animal concentration areas in a manner that meets the provisions of § 83.311(a)–(c) (relating to manure management).

(2) Runoff controls in animal concentration areas shall be designed, installed, operated and maintained in accordance with the standards contained in the *Pennsylvania Technical Guide*.

(3) The plan submitted for approval is not required to include BMP designs. During the implementation of the approved plan, the operator is responsible for obtaining the necessary BMP designs to implement the BMPs listed in the approved plan, and these BMP designs shall be kept on record by the operator as a supplement to the plan.]

[IMPLEMENTATION SCHEDULES]
IMPLEMENTATION SCHEDULE FOR CAO PLANS
RECORDKEEPING AND INFORMATIONAL
REQUIREMENTS FOR CAOs

§ 83.341. General recordkeeping requirements.

Unless otherwise specified, records required under this subchapter are not required to be submitted to the Commission or delegated conservation district, but shall be retained by the agricultural operation [complying with the act,] for at least 3 years.

§ 83.342. Recordkeeping relating to application of nutrients.

(a) Plans developed for CAOs shall [, at a minimum,] be supported by the information required in this section and §§ 83.343 and 83.344 (relating to alternative manure utilization recordkeeping; and exported manure information).

(b) The operator of a CAO shall keep the following accurate records of the land application of nutrients, crop yields and soil tests on the CAO.

(1) Records of soil testing results shall be maintained consistent with § [83.291(e)] 83.292(e) (relating to determination of [available] nutrients needed for crop production). Soil testing is required once every 3 years for each crop management unit.

(2) Records of manure testing results and testing of other nutrient sources shall be maintained consistent with [§]§ 83.291 [(b)(3) and 83.343(f)] (relating to determination of available nutrients needed for crop production). Manure testing is required once every year for each manure group.

(3) Land application of nutrients on a CAO shall be documented on an annual basis by recording the following information for each source of nutrients:

* * * * *

(ii) The [months] dates of nutrient application.

(iii) The rate of nutrient application for each [field or] crop [group] management unit.

(iv) The number of animals on pasture, the number of days on pasture and the average number of hours per day on pasture.

(4) Approximate annual crop yield levels for each crop [group] management unit shall be recorded.

(5) Annual manure production [calculated consistent with procedures in § 83.291(b)(2) shall be recorded] figures for each manure group.

§ 83.343. Alternative manure utilization recordkeeping.

(a) Recordkeeping for manure [transfers] exports. The following recordkeeping requirements apply to manure exported off of the CAO:

(1) A manure [transfer] export sheet shall be used for all manure transfers from CAOs.

(2) The Commission or delegated conservation district [shall] will make copies of the manure [transfer] export sheet forms available to CAOs.

(3) Computer-generated forms other than the manure [transfer] export sheet forms provided by the Commission may be used if they contain the same information as, and are reasonably similar in format to, the forms provided by the Commission.

(4) Recordkeeping related to the application of exported manure shall comply with the following:

(i) The exporter is responsible for the completion of [section 1 of] the [Manure Transfer Sheet] manure export sheet, providing a copy to the importer and retaining a copy at the exporting operation.

(ii) When the exporter, or person working under the direction of the exporter, such as an employee or a manure hauler/appliator, applies the manure to the land, the exporter is responsible for [completion of section 2 of the Manure Transfer Sheet] maintaining records of the actual application dates, application areas (including the observation of any relevant setback restrictions), application methods, and application rates for the exported manure.

(iii) When the manure is exported through a broker, the exporting CAO is not responsible for obtaining records of actual application information for importing operations, unless the exporting operator manages the application of the manure. The broker shall retain records of the application of all manure (including date, areas, methods and rates applied) and shall provide a copy of these application records to the importing site for their records.

(b) Recordkeeping for alternative manure utilization by means other than manure [transfer] export. Operators shall keep annual records of the amount and use of manure utilized in any manner other than through manure transfers.

[(c) Exporting manure. Those exporters following plans that detail the exporting of manure to known landowners, as in § 83.301(a) (relating to excess manure utilization plans for CAOs), need not submit manure transfer records to the agency approving the plan, but shall retain these records for review by the appropriate agency personnel in accordance with § 83.341 (relating to general recordkeeping requirements). CAOs exporting manure other than to known landowners are required to, within 1 year of approval of the plan, submit to the agency which approved the plan a copy of the manure transfer sheets or the summary of manure transfers of all manure transfers. Manure transfer records shall be maintained by the exporter for 3 years.

(d) Summary of manure transfers. When manure transfer records are required to be submitted to the reviewing authority, the exporter may either submit the manure transfer sheets for all manure transfers or the exporter may summarize the information from these sheets on the annual summary of manure transfers and submit this form only.

(e) Computer generated forms. The summary of manure transfer forms will be provided by the Commission. Computer-generated forms other than the summary of manure transfers provided by the Commission may be used if they contain the same information as, and are reasonably similar in format to, the forms provided by the Commission.

(f) Determination of nutrient content. During the implementation of the plan, operators of CAOs exporting manure will be required to determine the nutrient content of the manure by using accepted manure sampling and chemical analysis methods as outlined in the Manure Management Manual or the Pennsylvania Agronomy Guide.]

§ 83.344. Exported manure informational packets.

(a) [When] If manure is exported from a CAO, the exporter will provide the importer and any relevant manure hauler/applicators or brokers with a completed [Manure Transfer Sheet] manure export sheet.

(b) If the manure is to be land applied, the exporter is required to provide the following information to the importer or broker, as supplied by the Commission or its delegated agent:

(1) [A fact sheet allowing for quick estimation of manure application rates.

(2)] The applicable sections of the Manure Management Manual.

[(3)] (2) * * *

[(4)] (3) * * *

(c) The Commission or its delegated agent will provide the materials in subsection (b) for distribution by the exporter. The exporter is only required to provide those items in subsection (b) that have been made available to the exporter by the Commission or its delegated agent.

(d) The exporter is responsible for providing the informational materials described in subsection (b) only if the importer, hauler/applicator or broker does not already have a current copy of the informational materials.

MINIMUM STANDARDS FOR MANURE STORAGE FACILITIES ON CAOs

§ 83.351. Minimum standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities.

(a) The minimum standards contained in this section apply to new manure storage facilities constructed, and existing manure storage facilities expanded, as part of a plan developed for a CAO.

(1) Manure storage facilities shall be designed, constructed, located, operated, maintained, and, [when] if no longer used for the storage of manure, removed from service, [to prevent the pollution of] in a manner that protects surface water and groundwater quality, and prevents the offsite migration of pollution, by meeting the standards contained in the Manure Management Manual and the Pennsylvania Technical Guide, except if these standards conflict with this subchapter.

(2) In addition to complying with paragraph (1), manure storage facilities shall be designed and located in accordance with the following criteria:

(i) Facilities shall comply with the applicable criteria in § 91.36 (relating to pollution control and prevention at agricultural operations).

(ii) Facilities shall comply with the applicable criteria in Chapter 105 (relating to dam safety and waterway management).

[(ii)] (iii) * * *

[(iii)] (iv) * * *

[(iv)] (v) * * *

* * * * *

(F) Within 200 feet of a perennial stream, river, spring, lake, pond, reservoir or any water well [where these facilities] if a facility (except permanent stacking and compost facilities) [are] is located on slopes exceeding 8% or [have] a facility has a capacity of 1.5 million gallons or greater.

(G) Within 200 feet of a property line, [where these facilities] if a facility (except permanent stacking and compost facilities) [are] is located on slopes exceeding 8% [, where] and if the slope is toward the property line, or [have] a facility has a capacity of 1.5 million gallons or greater, unless the landowners within the 200 foot distance from the facility otherwise agree and execute a waiver in a form acceptable to the Commission.

[(v)] (vi) * * *

* * * * *

(F) Within 200 feet of a perennial stream, river, spring, lake, pond, reservoir or any water well [**where these facilities**] if a facility (except permanent stacking and compost facilities) [**are**] is located on slopes exceeding 8% or a facility [**have**] has a capacity of 1.5 million gallons or greater.

(G) Within 300 feet of a property line, [**where these facilities**] if a facility (except permanent stacking and compost facilities) [**are**] is located on slopes exceeding 8%, [**where**] and if the slope is toward the property line, or [**have**] a facility has a capacity of 1.5 million gallons or greater, unless the landowners within the 300 foot distance from the facility otherwise agree and execute a waiver in a form acceptable to the Commission.

[(vi)] (vii) The Commission or a delegated conservation district may waive the distance restrictions in subparagraphs [(iv)] (v)(A), (B) and [(E)—(G)] (F), if the following can be demonstrated to the satisfaction of the Commission or a delegated conservation district:

(A) The siting restrictions contained in subparagraph [(iv)] (v) would make the placement economically unreasonable or physically impractical.

* * * * *

(viii) **Manure storage facilities constructed after October 1, 1997, on CAOs that were in existence prior to October 1, 1997, shall meet the applicable criteria established under this section.**

(3) The designer of the manure storage facility [**required by**] described in the plan shall address the following:

* * * * *

(iii) An onsite investigation to evaluate the site suitability for a facility in accordance with the standards in the *Manure Management Manual and the Pennsylvania Technical Guide*.

(b) The repair of an existing manure storage facility that is part of a plan developed for a CAO shall comply with applicable standards in the *Manure Management Manual and the Pennsylvania Technical Guide*. The location standards do not apply to these facility repairs.

(c) The site specific design for the construction, expansion or major repair of a liquid or semisolid manure storage facility covered under the act shall be done or approved by an engineer registered in this Commonwealth. The engineer shall certify that the design complies with the applicable design standards described in the *Manure Management Manual and the Pennsylvania Technical Guide*. **At least 2 weeks prior to installation of the facility or the repair, the registered engineer shall submit a verification (including a quality assurance inspection plan for construction) to the Commission or delegated conservation district documenting that the design, meeting the criteria established in the *Manure Management Manual and the Pennsylvania Technical Guide*, has been completed, and that any applicable setback requirements have been met.** The responsible engineer and construction contractor shall certify to the Commission or delegated conservation district that construction of the manure storage facility was completed according to the design and construction standards.

(d) A written site specific contingency plan, developed in accordance with the standards contained in the *Penn-*

sylvania Technical Guide, addressing actions to be taken in the event of a manure leak or spill from a manure storage facility covered under the act, shall be developed and kept onsite at the operation. In the case of a leak or spill of manure from a manure storage facility covered under the act, the operator is responsible for implementation of the site specific contingency plan developed for the operation. The contingency plan shall contain information necessary to meet the notification requirements for reporting leak or spill events which would result in pollution or create a danger of pollution to surface water or groundwater contained in § [**101.2(a)**] **91.33** (relating to incidents causing or threatening pollution).

* * * * *

PLAN REVIEW AND IMPLEMENTATION FOR CAOs

§ 83.361. Initial plan review and approval.

* * * * *

(b) The Commission or a delegated conservation district shall approve [, **modify**] or disapprove the plan or plan amendment within 90 days of receipt of a complete plan or plan amendment. The notice of determination to [**modify or**] disapprove a plan or plan amendment shall be provided in writing to the operator submitting the [**same**] plan or plan amendment, and shall include an explanation specifically stating the reasons for [**modification or**] disapproval. The Commission or a delegated conservation district will, within 10 days from the date of receipt of the plan or plan amendment, provide notice to the operator indicating [**any missing or incomplete elements of the plan submission**] **whether all of the required plan elements have been received.**

(c) Approvals will be granted only for those plans or plan amendments that satisfy the requirements of [**the act and**] this subchapter.

* * * * *

(e) An agricultural operation that submits a complete plan or plan amendment is authorized to implement the [**same**] plan or plan amendment if the Commission or a delegated conservation district fails to act within 90 days of submittal, **beginning on the date of receipt of the complete plan or plan amendment by the Commission or delegated conservation district.** When the Commission or a delegated conservation district fails to act within 90 days of plan submission, and the plan or plan amendment is resubmitted and the delegated conservation district or Commission again fails to act within 90 days of resubmittal, it shall be deemed approved.

§ 83.362. Plan implementation.

(a) A CAO shall fully implement the plan [**within**] consistent with the implementation schedule included as part of the approved plan. **Implementation schedules shall not extend past 3 years of the date the plan is approved or deemed approved, or for which implementation is otherwise authorized under § 83.361(e) (relating to initial plan review and approval), unless the implementation schedule is extended upon approval of the Commission or delegated conservation district. [for cause shown or a plan amendment] § 83.371 (relating to plan amendments). The 3-year implementation schedule shall be extended an additional 2 years for individual substantial capital improvements required under an approved plan for**

an operation required to submit a plan under § 83.261(a) (relating to general) if the following occur:

(1) The owner or operator demonstrates that the cost of all or part of the individual improvements for which the extension is applicable cannot be financed through available funding mechanisms.

(2) A sum of \$2 million or more has not been appropriated for grants and loans to the nutrient management fund above any Chesapeake Bay Nonpoint Source Pollution Abatement moneys that may be appropriated to the fund by October 1, 1998.]

(b) [Whatever adjustments are made in the implementation of the approved plan, the nutrient] Nutrient application rates shall be [balanced] developed as described in § 83.293 (relating to determination of nutrient application rates) and shall be implemented upon approval of the plan or plan amendment, as applicable. The [owner,] operator [or specialist] shall review the approved plan at least annually to ensure that this condition is met.

(c) At least every 3 years, the plan shall be reviewed by a commercially or individually certified nutrient management specialist. If the agricultural operation is still consistent with the approved plan and the nutrient content and soil test values used in the plan have not significantly changed, and the accepted reference factors used in the plan have not changed since approval, the specialist shall provide notice of this to the reviewing agency. A plan amendment shall be submitted to the reviewing agency in accordance with § 83.361(a), if the agricultural operation has changed from that described in the approved plan [(see), as required by § 83.371 (relating to plan amendments)]].

(d) Limited liability protection, as described in § 83.206 (relating to limitation of liability), is afforded to those operators properly implementing an approved plan under this subchapter.

PLAN AMENDMENTS AND TRANSFERS FOR CAOs
§ 83.371. Plan amendments.

(a) A plan amendment is required [when] if the operator of a CAO expects to make significant changes in the management of nutrients from those contained in the approved plan. Those significant changes in the management of a nutrient which would require a plan amendment are [as follows] any one of the following:

* * * * *

(3) A change in [the method of] excess manure utilization [under § 83.301 (relating to excess manure utilization plans for CAOs)] arrangements as described in the approved plan. No amendment is required to address the loss of an importer if the loss does not impair the operator's ability to properly manage the manure generated on the operation.

(4) [When] If calculations in the plan as originally submitted are in error, or if figures used in the plan are inconsistent with those contained in the *Pennsylvania Agronomy Guide* and [the *Manure Management*

Manual] associated fact sheets and manuals, and adequate justification has not been given in writing for the inconsistency.

(5) [When] If a [different] BMP[,] different than that called for in the approved plan, is proposed to address a manure management or stormwater management concern.

(6) [When] If, after the first 3 years of implementing the plan, actual yields are less than 80% of the expected crop yields used in the development of the plan.

(7) If alternative organic nutrient sources will replace or augment nutrient sources described in the plan.

(8) If additional lands are brought into the operation through purchase, lease or renting.

(9) If there is a change in the manure management system that is expected to result in a significant change in the manure nutrient content.

(b) A plan amendment under subsection (a) shall be developed and certified by a nutrient management specialist and shall be submitted to the reviewing agency [in accordance with] under § [83.361(a)] 83.371(a) (relating to [initial] plan [review and approval] amendments).

(c) Plan updates to address operational or computation changes other than those described in subsection (a) shall be developed and certified by a commercial or individual nutrient management specialist, retained at the operation and submitted to the district for inclusion in the approved nutrient management plan.

§ 83.373. Plan transfers.

* * * * *

(b) If the transfer of the approved plan results in operational changes requiring a plan amendment under § 83.371 (relating to plan amendments), the plan amendment shall be submitted for approval of the Commission or a delegated conservation district along with, or before, the notification required under subsection (a).

CONTAGIOUS DISEASE EMERGENCIES ON CAOs
§ 83.381. Manure management in emergency situations.

(a) [In situations when] If there is an outbreak of a contagious disease as regulated by the Department of Agriculture, manure management shall be consistent with [requirements in] the Department of Agriculture's order of quarantine issued under the Domestic Animal Act (3 P. S. §§ 311—354) and regulations thereunder.

* * * * *

(d) [Where] If nutrients are applied in excess of crop need due to the quarantine restrictions placed on the manure, and the cropping sequence permits, cover crops shall be planted to the site to minimize the loss of these nutrients. The harvesting of these cover crops is encouraged to facilitate the removal of excess nutrients.

* * * * *

(f) The application of manure during the quarantine shall be done under § 83.294[(5)] (f) (relating to nutrient application procedures).

(g) Standard soil tests will be required each year for crop [**fields**] **management units** where the implementation of the quarantine required that nutrients be applied in excess of the amount the crop can use, **and shall continue for 3 successive years thereafter.** In addition to the standard test, an appropriate test indicating the amount of nitrogen available for crop uptake will be required for 1 year beyond the cessation of excess manure application.

PLAN SUMMARY INFORMATION FOR [**VOLUNTEER OR FINANCIAL ASSISTANCE**] VAO PLANS

§ 83.391. Identification of agricultural operations and acreage.

(a) **Agricultural operation identification sheet.** The plan shall include an agricultural operation identification sheet which includes the following information:

* * * * *

(2) **A brief description of the operation including:**

(i) **Animal types included on the operation.**

(ii) **General scope of the operation (general acreage of the cropland, hayland and pastures, and farmstead acres, and animal numbers for the various types of animals on the operation).**

(iii) **The crop rotation planned to be used on the operation.**

(iv) **The dimensions and capacity of any existing manure storage facilities on the operation.**

(v) **The capacity and practical application rates of manure application equipment that will be used on the operation, as applicable.**

(3) **The signature of the operator, which meets the signature requirements of the Commission, indicating the operator's concurrence with the practices outlined in the plan.**

[(3)] (4) * * *

[(4)] (5) **The watersheds [of] in which the land included in the plan is located.** The existence of special protection waters, as identified in [§ 93.9] **Chapter 93 (relating to [designated water uses and water quality criteria] water quality standards),** shall also be noted.

[(5)] (6) **The total acreage of the agricultural operation included in the plan. This acreage shall include:**

(i) **Lands located at or adjacent to the animal production facility, which are owned by the operator of the facility.**

(ii) **Other owned, rented or leased lands, under the management control of the operator of the facility, that are used for the application, treatment or storage of manure generated at the facility.**

[(6)] (7) **The total acreage of land of the agricultural operation on which nutrients shall be applied.** The total acreage shall be separated into acres of owned land and acres of rented or leased land.

[(7)] (8) * * *

[(8)] (9) **The name [and], nutrient management certification program identification number, and signa-**

ture of the nutrient management specialist that prepared the plan, the date of plan preparation and the date of revisions, if any.

(b) **Maps and aerial photographs.** The plan shall include a topographic map drawn to scale identifying the lands included in the agricultural operation, and shall also contain maps or aerial photographs of sufficient scale which clearly identify:

* * * * *

(4) **The identification of all soil types and slopes on the agricultural operation.** An NRCS soil survey map with the soil identification legend [shall] will be sufficient to satisfy this requirement. These soil survey maps may be available at the county NRCS office or conservation district office.

(5) **The location of areas where manure application [may be limited based on] is restricted under § 83.404 [(5)] (f) (relating to nutrient application procedures).**

(6) **The location of proposed or existing structural BMPs, including manure storage facilities, on the operation.**

(7) **The location of existing or proposed temporary manure stacking areas or in-field stacking locations.**

(c) **Phosphorus Index.** The plan shall include an appendix containing the completed Phosphorus Index spreadsheet or other similar information summary which shall list the individual source and transport factor values, as appropriate, and the final Phosphorus Index value, for each individual area evaluated on the operation, as required by the Phosphorus Index.

(d) **Agreements with importers and brokers.** The plan shall include an appendix containing signed exporter/importer and exporter/broker agreements, and nutrient balance sheets and associated maps, for operations where these documents are required under this subchapter.

§ 83.392. Summary of plan.

(a) **The plan shall contain a summary that includes:**

(1) **A [chart] manure summary table listing:**

(i) **The total amount of manure planned to be generated on the operation annually.**

(ii) **The total amount of manure planned to be used on the operation annually.**

(iii) **The total amount of manure planned to be exported from the operation annually.**

(2) **[Nutrient] A nutrient application [rates by field or crop group] summary documenting the planned nutrient applications for each crop management unit listing:**

(i) **Acres.**

(ii) **Expected yield.**

(iii) **Nutrients applied as starter chemical fertilizer.**

(iv) **Planned manure application period.**

(v) **Planned manure application rate and type of manure to be applied.**

(vi) **Planned manure incorporation time.**

(vii) **Rate of other organic nutrient sources planned to be applied.**

(viii) **Other nutrients applied through chemical fertilizer.**

(ix) **Other comments or notes.**

(3) **[Procedures] General procedures and provisions for the utilization or proper disposal of excess manure.**

(b) **[Manure] The summary shall reference manure management and storage practices, stormwater runoff control practices and other appropriate BMPs necessary to protect the quality of surface water and groundwater [may be referenced in the summary, but shall be covered by the appropriate section of the plan].**

NUTRIENT APPLICATION FOR **[VOLUNTEER OR FINANCIAL ASSISTANCE] VAO PLANS**

§ 83.401. Determination of available nutrients.

(a) The plan shall **[include the amount of]** address each type of nutrient source **[used] generated or planned to be used** on the agricultural operation, including: manure, **[sludges] biosolids**, compost, **[cover crops]** commercial fertilizers and other **[nutrients that will be applied to the agricultural operation] nutrient sources.**

(b) The amount and nutrient content of **each manure [to be applied] group generated** on the agricultural operation shall be **[determined] documented in the plan** as follows:

(1) **[The plan shall include]** List the average number of animals **[of each animal type] for each manure group**, on a typical production day, for the agricultural operation.

(2) **[The]** List the amount of manure **[produced] generated** and when it is available for **[spreading] land application** on the agricultural operation **or for other planned uses. If actual manure production records are available for the operation, these records shall be used for determining the manure produced on the operation. If actual records of manure production do not exist for the operation, the amount of manure produced shall be calculated based on the average number of [AEU] animal units on the agricultural operation [or actual production data], and the storage capacity of manure storage facilities, if present. Bedding, wash water, rain and runoff, when mixed with the manure, shall be included in determining the total volume of manure [to be applied] generated. The plan shall include the calculations or variables used for determining the amount of manure produced on the operation.**

(3) **[For the preparation of the plan and plan amendments, it is recommended that the nutrient content of the manure be determined by]** List the nutrient content of manure as follows:

(i) **Analytical manure testing results shall be used in the development of the plan. These manure tests shall include an analysis of the percent solids, total nitrogen (as N), ammonium nitrogen (as NH₄-N), total phosphate (as P₂O₅), and total potash (as**

K₂O), for each manure group generated on the operation, and these analytical results shall be recorded in the plan. These manure analyses shall be performed using accepted manure sampling and chemical analysis methods as [outlined in the Manure Management Manual, or the Pennsylvania Agronomy Guide unless otherwise approved by the Commission or delegated conservation district] specified by the Commission.

(ii) **[When sampling and analysis is not done, the nutrient management specialist]** For newly proposed operations, and for manure groups on existing operations where sampling and analysis are not possible prior to initial plan development, the plan shall use either standard book values such as those contained in the **[Manure Management Manual or the] Pennsylvania Agronomy Guide** to determine the nutrient content of the manure **[.], or analytical results from a similar facility using a like management scheme, as approved by the Commission or delegated conservation district.** The nutrient content of the manure shall be recorded in the plan. **Samples and chemical analysis of the manure generated on the operation shall be obtained within 1 year of implementation of the approved plan, and the requirements of § 83.481 (relating to plan amendments) shall be followed as applicable.**

(iii) **After approval of the initial plan, manure tests are required to be taken annually for each manure group generated on the operation.**

(c) The nitrogen available from manure shall be based on the appropriate availability factors such as those contained in the **[Manure Management Manual or the] Pennsylvania Agronomy Guide.** The **plan shall include the amount of nitrogen available in the manure, and the planned manure incorporation times used to determine the nitrogen available [, shall be included in the plan].**

* * * * *

[(e) For the development of the initial plan, soil tests shall be required to represent the fields in the operation for phosphorus (P), potassium (K), soil pH and lime requirement using those procedures for the Northeastern United States, Bulletin # 493, published by the University of Delaware, or other Commission approved procedures. Soil tests conducted within the previous 3 years prior to submitting the initial plan are acceptable. After the approval of the initial plan, soil tests shall be required at least every 6 years from the date of the last test. Soil tests, or the results of the soil tests, are not required to be submitted with the plan, but shall be kept on record at the operation.]

§ 83.402. Determination of nutrients needed for crop production.

(a) The plan shall include the acreage and realistic expected crop yields for each crop **[group] management unit.**

(b) For the development of the initial plan, expected crop yields may not exceed those considered realistic for the soil type and climatic conditions, as set by the operator and the specialist, and approved by the Commission or a delegated conservation district. If actual yield

records are available during the development of the initial plan, the expected crop yields [may] shall be based on these records.

(c) If after the first 3 years of implementing the plan, the yields do not average at least 80% of the planned expected yield, the plan shall be amended to be consistent with the documented yield levels unless sufficient justification for the use of the higher yields is [provided in writing to] approved by the Commission or a delegated conservation district. **The amendment shall be submitted as required under §§ 83.471—83.483.**

(d) [For] When determining expected crop yields for [future] plan [updates and] amendments, expected crop yields shall be based on documented yield levels achieved for the operation. Expected crop yields higher than historically achieved may be used if the operator provides sufficient justification in writing to the Commission or delegated conservation district for the use of the higher yields [to the Commission or delegated conservation district].

(e) When developing the initial plan, soil tests shall be required for each crop management unit on the operation, to determine the level of phosphorus (as P), potassium (as K), and soil pH, as follows:

(1) Use those procedures recommended by Penn State and published in *Recommended Soil Testing Procedures for the Northeastern United States*, Bulletin # 493, published by the University of Delaware, or other Commission-approved procedures.

(2) Soil tests conducted within the previous 3 years prior to submitting the initial plan are acceptable.

(3) After the approval of the initial plan, soil tests are required for each crop management unit at least every 3 years from the date of the last test.

(4) The plan shall include soil test results for phosphorus (as P) in parts-per-million (ppm) as a component of the Phosphorus Index analysis for each crop management unit. Other soil test results are not required to be submitted with the plan, but shall be kept on record at the operation.

(f) The plan shall include [a determination of] recommendations based on current soil tests for the amount of [nutrients] nitrogen (as total N) and phosphorus (as P2O5) necessary for realistic expected crop yields.

[(f)] (g) The [*Pennsylvania Agronomy Guide* or *Manure Management Manual* may] procedures in the *Soil Test Recommendations Handbook For Agronomic Crops*, Penn State Agricultural Analytical Services Laboratory, shall be used when necessary to [assist in determining] determine or adjust the recommended amount of nutrients necessary [for achieving] to achieve realistic expected crop yields. Other methodologies for this adjustment may be used as approved by the Commission.

§ 83.403. Determination of nutrient application rates.

(a) [Nitrogen] Manure and other nutrient sources shall be applied [only in the amounts] so as not to exceed the amount of nitrogen necessary to

achieve realistic expected crop yields or at a rate not exceeding [what] the amount of nitrogen the crop will utilize for an individual crop year.

(b) **In addition to the nitrogen limitations described in subsection (a), applications of manure and other nutrient sources shall also be limited as determined by the Phosphorus Index, as follows:**

(i) **Apply the Phosphorus Index on all areas of the agricultural operation where nutrients will be applied.**

(ii) **Implement the resulting management actions as provided through the Phosphorus Index on each crop management unit.**

(c) The planned manure application rate shall be recorded in the plan. The planned manure application rate [may] shall be the lesser of any rate equal to or less than the balanced manure application rate based on nitrogen or the rate as determined by the Phosphorus Index.

(i) The balanced manure application rate based on nitrogen shall be determined by first subtracting the amount of available residual nitrogen and any other applied nitrogen, such as nitrogen applied in the starter fertilizer, from the amount of nitrogen necessary for realistic expected crop yields, and then dividing this by the available nitrogen content of the manure as determined by standard methods under § 83.401 (relating to determination of available nutrients).

(ii) The calculation or variables used for determining the balanced rates shall be recorded in the plan.

[(c)] (d) The plan shall include calculations for each crop management unit indicating the difference between the [recommended nitrogen] amount of nitrogen and phosphorus necessary for realistic expected crop yields under § 83.402 (relating to determination of nutrients needed for crop production) and the nitrogen and phosphorus applied through all planned nutrient sources, including, but not limited to, manure, [sludge] biosolids, starter fertilizer and other fertilizers, and residual nitrogen. [A deficit may be made up with supplemental nitrogen applications.] A nitrogen availability test may also be used to determine supplemental nitrogen needs.

§ 83.404. Nutrient application procedures.

[The plan shall include nutrient application procedures that meet the following criteria:

(1) (a) Nutrients shall be uniformly applied to fields during times and conditions that will hold the nutrients in place for crop growth, and protect surface water and groundwater in accordance with the approved manure management practices as described in the *Manure Management Manual*.

[(2)] (b) * * *

[(3) Application] (c) Manure application rates and procedures shall be consistent with the capabilities, including capacity and calibration range, of available application equipment. For existing operations and any operation using a commercial manure applicator, the plan shall include the capacity and practical application rates, based on calibration of the existing equipment. For proposed operations not using a commercial custom manure applicator, or where

this calibration is not feasible at planning time, the operator shall perform this application equipment calibration analysis prior to the first application of manure, or within 1 year of the facility beginning operation, whichever is sooner, and this information shall be included in any necessary amendments to the plan.

[(4)] (d) If manure will be applied using an irrigation system, the following applies:

(1) Application rates for irrigated liquid manure [irrigation] shall be based on the lesser of [either the nutrient plan] the following:

(i) The planned application rates in gallons per acre determined in accordance with § 83.403 [(a) and (b)] (c) (relating to determination of nutrient application rates) [, or the rates].

(ii) The combination of

(A) The liquid application rate in inches per hour determined to be within infiltration capabilities of the soil [such as those contained in the NRCS *Pennsylvania Irrigation Guide* or the Mid West Plan Service, *Livestock Waste Facilities Handbook*].

(B) The liquid application depth in inches not to exceed the soil's water holding capacity within the root zone or any restricting feature at the time of application.

(2) The liquid application rate and application depth shall be consistent with the current versions of Penn State Fact Sheets F254 through F257 as applicable to the type of irrigation system planned to be used on the operation, and the *NRAES-89 Liquid Manure Application System Design Manual*.

(e) If liquid or semisolid manure is planned to be applied at rates greater than 9,000 gallons per acre at any one application time, the rates and amounts shall be limited based on the infiltration rate and water holding capacity of the application areas as described in subsection (d). In these instances, the plan shall include the computations for the infiltration rates and water holding capacity of the various application areas, and these applications shall not be allowed to exceed either the determined infiltration rate or the water holding capacity of the application sites.

[(5)] (f) * * *

* * * * *

(ii) Within 100 feet of active private drinking water sources such as wells and springs [, where surface water flow is toward the water source, unless the manure is mechanically incorporated within 24 hours of application].

(iii) Within 100 feet of an inactive open drinking water well, where surface water flow is toward the water well, unless the manure is mechanically incorporated within 24 hours of application.

(iv) Within 100 feet of an active public drinking water source, unless other State or Federal laws or regulations require a greater isolation distance.

[(iv)] (v) * * *

[(v)] (vi) * * *

[(vi)] (vii) Within 100 feet of streams, springs, lakes, ponds, intakes to agricultural drainage systems (such as in-field catch basins, and pipe outlet terraces), or other types of surface water conveyance, [where] if surface water flow is toward the identified area, [when] and if soil is frozen, snow covered or saturated.

[(vii)] (viii) Within 200 feet of streams, springs, lakes, ponds, intakes to agricultural drainage systems (such as in-field catch basins, and pipe outlet terraces), or other types of surface water conveyance, [where] if surface water flow is toward the [identified area and where] surface water or conveyance, if the slope is greater than 8% as measured within the 200 feet, [during times when] and if the soil is frozen, snow covered or saturated.

(ix) On crop management units having less than 25% plant cover or crop residue at the time of manure application unless:

(A) For fall applications, the crop management unit is planted to a cover crop in time to allow for appropriate growth (according to standards contained in the *Pennsylvania Technical Guide*).

(B) For applications in the spring or summer, the crop management unit is planted to a crop that growing season.

(C) For winter applications, the crop management unit is addressed under subsection (g).

(D) Other practices are implemented to protect surface water and groundwater, which are approved by the Commission and are consistent with the operator's Erosion and Sediment Control Plan.

[(6)] (g) If winter [spreading] application of manure is [anticipated] planned, the application procedures [for the winter spreading of manure] shall be described in the plan. The procedures described in the plan shall be consistent with those contained in the *Manure Management Manual*. [If procedures other than those in the *Manure Management Manual* are to be used, approval shall be obtained from the Department or a delegated conservation district.] The plan shall list all crop management units where winter application is anticipated or restricted, planned ground cover on the application sites, and what procedures shall be utilized for each crop management unit to protect the quality of surface water and groundwater.

(h) In-field stacking of dry manure as a part of manure application is permissible if the manure is land applied on the crop management unit prior to the beginning of the next growing season. If stacking occurs for a longer period then the stack area shall meet *Pennsylvania Technical Guide* standards for a waste stacking and handling pad. All in-field stacking areas shall be located, and stacks shall be shaped, to minimize water absorption and impacts from runoff in accordance with the criteria approved by the Commission.

(i) If a commercial manure applicator will be used for the application of the manure on the agricultural operation, the commercial applicator shall meet the requirements of § 83.411(a)(5) (relating to alternative manure utilization plans).

ALTERNATIVE USES FOR EXCESS MANURE FOR
[VOLUNTEER OR FINANCIAL ASSISTANCE] VAO
PLANS

§ 83.411. Alternative manure utilization plans.

[For agricultural operations other than CAOs, the plan shall contain a description of the following:

(1) The estimated amount of manure to be utilized for other than land application on the operation.

(2) The intended season for the alternative manure utilization.

(3) The alternative manure utilization method such as:

(i) Land application by known importers.

(ii) Transfer through a manure broker.

(iii) Use on the agricultural operation in a manner other than land application.

(iv) Marketing through an open advertising system.]

(a) If manure will be exported for use off the VAO at known agricultural operations for agricultural land application, the following apply:

(1) The plan must include signed agreements, on a form acceptable to the Commission, between the VAO and each importing operator agreeing to accept the manure from the exporting operation. If the importing operator will be applying manure on lands rented or leased to that importing operator, the agreement must state that the importing operator has the authority to apply manure on the leased or rented lands.

(2) The importing operator is responsible for the proper handling and application of the imported manure accepted from an exporter, in accordance with the relevant nutrient balance sheet or the importer's nutrient management plan.

(3) A VAO exporting manure shall also be responsible for the handling and application of the manure if the VAO, or an employee or contractor of the VAO, applies manure at the importing operation.

(4) The plan must include copies of nutrient balance sheets applicable to each crop management unit where the exported manure will be applied. These nutrient balance sheets for importing operations must include a map identifying the areas where the imported manure will be applied and applicable manure application setbacks relevant to the site, including those identified in § 83.404 (relating to nutrient application procedures). Nutrient management plans implemented at the importing operations may be used to meet this requirement if they are attached to the plan.

(5) If the VAO will utilize a commercial manure hauler/applicator for the hauling or application of the exported manure, the plan must list the name of the commercial hauler/applicator that will be used. Only those haulers/applicators that meet the following qualifications shall be acceptable in the plan:

(i) Demonstrates knowledge of regulatory requirements related to transport and application of

manure, as applicable, through completion of training, testing, experience or other means acceptable to the Commission.

(ii) Has maintained a record of substantial compliance with regulatory requirements to ensure proper handling and application of manure, including this subchapter, as determined by the Commission.

(iii) Agrees to maintain records documenting compliance with this subchapter.

(iv) Meets other requirements determined by the Commission to ensure the proper hauling and application of manure.

(6) The Commission may consider the requirements of paragraph (5) to be satisfied if the hauler or applicator is certified under either a certification program approved by the Commission or as required by statute.

(b) If manure will be exported for use off of the VAO through a manure broker, the following apply:

(1) The plan must include a signed agreement, on a form acceptable by the Commission, between the VAO exporting the manure and each broker agreeing to accept manure from the exporting operation. Brokers are responsible for the proper handling and storage (where applicable) of the manure accepted from the VAO. Only brokers that meet the following requirements shall be acceptable in the plan:

(i) Demonstrates knowledge of regulatory requirements related to transport and application of manure through completion of training, testing, experience or other means acceptable to the Commission.

(ii) Has maintained a record of substantial compliance with regulatory requirements, including this subchapter, as determined by the Commission.

(iii) Agrees to maintain records documenting compliance with this subchapter.

(iv) Meets other requirements determined by the Commission to ensure the proper hauling and application of manure.

(2) The Commission may consider the requirements of paragraph (1) to be satisfied if the broker is certified under a certification program approved by the Commission or where required by statute.

(3) If the manure accepted by a broker will be applied to agricultural operations for crop production, the broker shall be responsible for the development of nutrient balance sheets for all crop management units where the manure will be applied. These nutrient balance sheets shall be retained by the broker and provided by the broker to the importing operation, for retention on the importing operation. Instead of developing nutrient balance sheets, the broker can ensure that an approved nutrient management plan exists for the importing sites.

(c) If manure will be exported for use off of the VAO to a known importer for use other than agricultural land application, the plan must include the following information.

(1) The name and general location of the importing agricultural operation.

(2) A brief description of the planned use for the imported manure.

(3) The amount of manure the operator plans to export to the importer annually.

(4) The planned season for the manure export.

(5) A signed agreement between the VAO and each importing operation agreeing to accept the manure for this use, on a form acceptable by the Commission.

(d) If manure is to be processed or utilized on the VAO in a manner other than for agricultural land application, the plan must briefly describe the planned use of the manure, including the amount planned to be processed or utilized annually.

(e) If manure is to be exported for use off of a VAO existing on _____ (*Editor's Note:* The blank refers to the effective date of adoption of this proposed rulemaking.) by using an open advertising system and the importers cannot be identified at planning time, the following apply:

(1) The plan must describe the proposed marketing scheme, including the estimated amount of manure planned to be marketed annually using an open advertising system.

(2) An operator may only utilize this method of exporting manure if the operator meets the manure broker requirements of subsection (b).

(3) The exporting VAO shall develop nutrient balance sheets for the importing operations, and provide them to the importing operator. These nutrient balance sheets shall be maintained by the exporting VAO, the importing operation and any manure hauler/applicator involved in the exporting of the manure. Nutrient management plans implemented at the importing operations may be used to meet this requirement if they are attached to the plan.

(f) The plan is not required to provide the specific plan details as provided in subsections (a)–(e) in these circumstances:

(1) If an importer receives less than the following amounts of manure from the VAO on an annual basis: 10 tons of solid poultry manure, 50 tons of solid nonpoultry manure, or 25,000 gallons of liquid manure. In these instances, the plan must list the name and location of the importing operation, and when and how much manure will be exported to the importing operation, as well as the proposed usage of the imported manure.

(2) If small quantities of manure, not to exceed 2,000 pounds annually, are expected to be marketed to individuals. In these circumstances, the plan must describe the total amount of manure planned to be marketed in this manner, and the intended use of the manure.

(g) The land application of manure exported from a VAO shall be restricted as follows:

(1) The exported manure must not be applied to land within 150 feet of surface waters, unless otherwise allowed under an approved nutrient management plan meeting the appropriate planning criteria established under this subchapter.

(2) Land application of all exported manure shall also comply with the other applicable manure application setbacks under § 83.404.

MANURE MANAGEMENT FOR [VOLUNTEER OR FINANCIAL ASSISTANCE] VAO PLANS

§ 83.421. Manure management.

(a) In the preparation of a plan, the nutrient management specialist[, or specialist in conjunction with other individuals with nutrient runoff control expertise such as NRCS or conservation district personnel,] shall perform a site visit to conduct a review of the adequacy of existing manure management practices to prevent surface water or groundwater pollution [under normal climatic conditions for the location] from storm events up to and including a 25-year, 24-hour storm intensity. The specialist may confer with NRCS, conservation district staff or others with expertise with nutrient runoff control. This review shall be documented in the plan and shall identify those conditions and areas where nutrients directly discharge, or have the potential to directly discharge, into surface water as a result of a storm event up to and including a 25-year, 24-hour storm intensity, due to inadequate manure management practices. For purposes of this review, direct discharges are any flows of stormwater contaminated with manure to surface waters without prior filtration or other treatment, such as grassed filter strips. Practices to be evaluated in this review include manure handling, collection, barnyard runoff control[,] and storage [and spreading] practices. Examples of inadequate manure management practices include the following:

(1) Manure, contaminated water or nutrients leaving manure storage or animal concentration areas, and discharging into surface water or groundwater.

(2) The uncontrolled flow of storm water into, or across, manure storage facilities, [temporary] manure stacking areas [and] or animal concentration areas.

* * * * *

(6) Manure storage facilities which otherwise do not comply with § 91.36 (relating to pollution control and prevention at agricultural operations), the *Manure Management Manual* and the *Pennsylvania Technical Guide*.

(b) The plan shall address any existing inadequate manure management practices as follows:

(1) As part of a plan certification under § 83.261(g) (relating to general), the nutrient management specialist shall [assure] ensure that the review required under subsection (a) was undertaken in the preparation of the plan.

(2) The plan [will] must contain [those BMPs that are necessary] a listing of inadequate manure management practices and related conditions and problem areas, and the BMPs planned to correct [identified water contamination sources and] them to protect surface water and groundwater.

(c) [During the implementation of the approved plan, the] The BMPs shall be selected, designed, constructed and maintained to meet the specifications

contained in the *Manure Management Manual* and the *Pennsylvania Technical Guide*.

(d) The plan submitted for approval is not required to include BMP designs. During the implementation of the approved plan, the operator is responsible for obtaining the necessary BMP designs and associated **Operation and Maintenance Plans** to implement the BMPs listed in the approved plan. The BMP designs and associated **Operation and Maintenance Plans** shall be kept on record by the operator as a supplement to the plan.

(e) **Animal concentration areas shall be sized, located, implemented and managed to eliminate the direct discharge of polluted storm water from these areas to surface water and groundwater, as described in the *Manure Management Manual* and the *Pennsylvania Technical Guide*, including the following requirements which shall be addressed in the plan:**

(1) **The size of animal concentration areas shall be minimized.**

(2) **These areas shall be located as to eliminate the direct discharge of polluted storm water from a storm event of up to and including a 25-year 24-hour storm intensity, except as allowed in subsection (5).**

(3) **Accumulated manure on nonvegetated animal concentration areas shall be collected and land-applied to cropland, or exported from the operation, as described in the plan.**

(4) **These areas will be managed so as to minimize the amount of clean water entering the animal concentration area.**

(5) **Polluted storm water from these areas will be managed and properly applied, stored or treated through an appropriate vegetative area or other suitable treatment process, which shall meet the requirements of this subchapter and the *Pennsylvania Technical Guide*, to eliminate the direct discharge of polluted storm water to surface waters or groundwater.**

(6) **Animal access to surface water in these areas shall be controlled.**

[(c)] (f) **The following BMPs [may be], as appropriate, shall be used if necessary, and shall be described in the plan, to protect water quality [and to control water in] by controlling storm water in the farmstead, including the manure storage and animal concentration areas:**

(1) **Manure storage facilities including permanent manure stacking areas. The construction of manure storage facilities is not required unless necessary to protect surface water and groundwater as part of an integrated nutrient management system. Nutrient management plans that require the construction of a manure storage facility must describe the planned type, dimensions and capacity of the proposed facility, and the location of the proposed facility must be identified on a plan map.**

(2) **[Adequate collection of manure from animal concentration areas for utilization on cropland or for other acceptable uses.] Diversion of clean water from manure storage facilities and animal concentration areas, unless required for proper operation of an integrated nutrient management system.**

(3) **[Diversion of contaminated runoff within animal concentration areas to a storage, lagoon, collection basin, vegetated filter area, or another suitable site or facility.] Treatment or storage of storm water contaminated through contact with manure in the manure storage or animal concentration areas.**

(4) **[Diversion or elimination of contaminated water sources unless required for proper operation of the manure management system.**

(5) **] Temporary manure stacking areas, if they are located outside of concentrated water flow areas and areas where manure application is restricted or prohibited based on § 83.404 [(5)] (e) (relating to nutrient application procedures).**

[(6)] (5) **Other appropriate BMPs acceptable to the Commission, including those described in the *Manure Management Manual* and the *Pennsylvania Technical Guide*.**

[(d)] (g) * * *

[(e)] (h) * * *

[(f)] (i) **The siting, design and installation of manure storage facilities shall meet the requirements in § 83.461 (relating to minimum standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities) [and], the *Manure Management Manual* and the *Pennsylvania Technical Guide*, as they relate to water quality protection.**

(j) **If alternative manure technology practices and equipment are planned to address nutrient management issues related to the operation, the rationale for and expected benefit of the planned alternative practices and equipment shall be described in the plan.**

§ 83.422. **Site specific emergency response plans.**

(a) **VAOs shall develop and implement a written site-specific emergency response plan addressing actions to be taken in the event of a discharge, leak or spill of materials containing manure. A copy of the plan shall be kept onsite at the operation. The emergency response plan must contain information necessary to meet the notification requirements for reporting discharge, leak or spill events which would result in pollution or create a danger of pollution to surface water or groundwater contained in § 91.33 (relating to incidents causing or threatening pollution).**

(b) **In the case of a discharge, leak or spill of materials containing manure related to the operation, the operator shall implement the emergency response plan developed for the operation. The operator shall comply with the notification and reporting requirements.**

(c) **The nutrient management plan shall contain a verification from a certified planner that an adequate written site-specific emergency response plan meeting the requirements of this section exists for the VAO.**

(d) **It is recommended that the operator provide a copy of the emergency response plan to the local emergency management agency that would assist during a major discharge, leak or spill event.**

(e) A BMP-specific contingency plan as required by § 83.461 (relating to minimum standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities) shall be included as an addendum to the emergency response plan.

STORMWATER [RUNOFF] CONTROL FOR
[VOLUNTEER OR FINANCIAL ASSISTANCE] VAO
PLANS

§ 83.431. Stormwater [runoff] control.

(a) [Field runoff control.

(1) [In the preparation of a plan, the nutrient management specialist [, or specialist in conjunction with other individuals with nutrient runoff control expertise such as NRCS or conservation district personnel,] shall conduct a review of the adequacy of existing [runoff] stormwater control practices on [fields,] croplands, haylands and pastures included in the plan to prevent surface and groundwater pollution. The specialist may confer with NRCS, conservation district staff or others with expertise with nutrient runoff control. This review shall be included in the plan and shall identify [those] critical runoff problem areas [where nutrients directly discharge into surface water or groundwater].

[(2)] (b) The plan shall contain a list of specific [runoff] stormwater control BMPs to address those critical runoff problem areas identified in the review required under [paragraph (1)] subsection (a). This list of [runoff] stormwater control BMPs may not be in conflict with other relevant plans developed for the operation, such as a current [conservation plan, developed for the operation] Conservation Plan, unless otherwise [justified in writing by the planner to] approved by the Commission or delegated conservation district.

[(3)] (c) The plan submitted for approval is not required to include BMP designs. During the implementation of the approved plan, the operator is responsible for obtaining the necessary BMP designs and associated Operation and Maintenance Plans to implement the BMPs listed in the approved plan, and these BMP designs and associated Operation and Maintenance Plans shall be kept on record by the operator as a supplement to the plan.

[(4)] (d) BMPs listed in the plan to address critical runoff problem areas shall be selected, designed, installed, operated and maintained in accordance with the practices and standards contained in the *Manure Management Manual* and the *Pennsylvania Technical Guide*.

[(5) Although an erosion and sedimentation control plan, meeting the requirements of Chapter 102 (relating to erosion and sediment control),] (e) The plan must include a verification from the specialist developing the plan, indicating that a current Erosion and Sediment Control Plan, meeting the requirements of Chapter 102 (relating to erosion and sediment control), exists for all plowed or tilled croplands included in the plan. A current Conservation Plan may be used to meet this requirement, as allowed by Chapter 102. The Erosion and Sediment

Control Plan is not required to be submitted as part of a nutrient management plan [under the act, meeting the requirements of]. Compliance with this section will not eliminate the operator's responsibility to comply with Chapter 102 or other relevant State laws or regulations relating to the control of erosion and sedimentation from [earth moving] construction activities [such as agricultural plowing and tilling].

[(6)] (f) For areas on land rented [land] or leased by the operator that have been identified as critical runoff problem areas which will require the installation of BMPs requiring construction activities, the operator shall do one of the following:

* * * * *

[(b) Animal concentration areas.

(1) The plan shall address stormwater runoff controls in animal concentration areas in a manner that meets the provisions of § 83.421(a)—(c) (relating to manure management).

(2) Runoff controls in animal concentration areas shall be designed, installed, operated and maintained in accordance with the standards contained in the *Pennsylvania Technical Guide*.

(3) The plan submitted for approval is not required to include BMP designs. During the implementation of the approved plan, the operator is responsible for obtaining the necessary BMP designs to implement the BMPs listed in the approved plan, and these BMP designs shall be kept on record by the operator as a supplement to the plan.]

IMPLEMENTATION SCHEDULE FOR [VOLUNTEER
OR FINANCIAL ASSISTANCE] VAO PLANS

RECORDKEEPING AND INFORMATIONAL
REQUIREMENTS FOR [VOLUNTEERS] VAOs

§ 83.451. General recordkeeping requirements.

Unless otherwise specified, records required under this subchapter are not required to be submitted to the Commission or a delegated conservation district, but shall be retained by the agricultural operation [complying with the act], for at least 3 years.

§ 83.452. Recordkeeping relating to application of nutrients.

(a) An approved plan [voluntarily] developed for [agricultural operations seeking the limited liability protection under § 83.206 (relating to limitation of liability)] a VAO shall [, at a minimum,] be supported by the information required in [this section and] §§ 83.453 and 83.454 (relating to alternative manure utilization recordkeeping; and exported manure informational packets).

(b) The operator of [an agricultural operation that develops a plan under the act] a VAO shall keep the following accurate records of the land application of nutrients, crop yields and soil tests on the agricultural operation.

(1) Records of soil testing results shall be maintained consistent with § [83.401(e)] 83.402(e) (relating to determination of [available] nutrients needed for

crop production). Soil testing is required once every 3 years for each crop management unit.

(2) Records of manure testing results and testing of other nutrient sources shall be maintained consistent with § 83.401 [(b)(3)] (relating to determination of available nutrients). Manure testing is required once every year for each manure group.

(3) Land application of nutrients on [an agricultural operation] a VAO shall be documented on an annual basis by recording the following information for each source of nutrients:

* * * * *

- (ii) The [months] dates of nutrient application.
- (iii) The rate of nutrient application for each [field or] crop [group] management unit.
- (vi) The number of animals on pasture, the number of days on pasture and the average number of hours per day on pasture.

(4) Approximate annual crop yield levels for each crop [group] management unit shall be recorded.

(5) Annual manure production [calculated consistent with procedures in § 83.401(b)(2) shall be recorded] figures for each manure group.

§ 83.453. Alternative manure utilization record-keeping.

(a) [*Recordkeeping for manure transfers.* When manure is exported from an operation voluntarily complying with the act, records shall be kept which indicate the amount of manure exported, when it was exported and to whom it was exported.

(b) *Recordkeeping for alternative manure utilization by means other than manure transfer.* Operators shall keep annual records of the amount of manure utilized in any manner other than through manure transfers.]

Recordkeeping for manure exports. The following recordkeeping requirements apply to manure exported off of the VAO:

- (1) A manure export sheet shall be used for all manure transfers from VAOs.
- (2) The Commission or delegated conservation district will make copies of the manure export sheet forms available to VAOs.
- (3) Computer-generated forms other than the manure export sheet forms provided by the Commission may be used if they contain the same information as, and are reasonably similar in format to, the forms provided by the Commission.

(4) Recordkeeping related to the application of exported manure shall comply with the following:

(i) The exporter is responsible for the completion of the manure export sheet, providing a copy to the importer and retaining a copy at the exporting operation.

(ii) When the exporter, or person working under the direction of the exporter such as an employee or a manure hauler/applicator, applies the manure to the land, the exporter is responsible for maintaining records of the actual application dates, application areas (including the observation of any

relevant setback restrictions), application methods, and application rates for the exported manure.

(iii) When the manure is exported through a broker, the exporting VAO is not responsible for obtaining records of actual application information for importing operations, unless the exporting operator manages the application of the manure. The broker shall retain records of the application of all manure (including date, areas, methods and rates applied) and shall provide a copy of these application records to the importing site for their records.

(b) *Recordkeeping for alternative manure utilization by means other than manure export.* Operators shall keep annual records of the amount and use of manure utilized in any manner other than through manure transfers.

§ 83.454. Exported manure informational packets.

(a) If manure is exported from a CAO, the exporter shall provide the importer and any relevant manure hauler/applicators or brokers with a completed manure export sheet.

(b) If the manure is to be land applied, the exporter is required to provide the following information to the importer or broker, as supplied by the Commission or its delegated agent:

- (1) The applicable sections of the *Manure Management Manual*.
- (2) A concise educational publication describing the key concepts of nutrient management.
- (3) Additional informational items as supplied by the Commission for this purpose.

(c) The Commission or its delegated agent will provide the materials in subsection (b) for distribution by the exporter. The exporter is only required to provide those items in subsection (b) that have been made available to the exporter by the Commission or its delegated agent.

(d) The exporter is responsible for providing the informational materials described in subsection (b) only if the importer, hauler/applicator or broker does not already have a current copy of the informational materials.

MINIMUM STANDARDS FOR MANURE STORAGE FACILITIES ON [VOLUNTEER OR FINANCIAL ASSISTANCE OPERATIONS] VAOs

§ 83.461. Minimum standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities.

(a) The minimum standards contained in this section apply to new manure storage facilities constructed, and existing manure storage facilities expanded, as part of a plan developed [and approved as a condition of receiving financial assistance under the act or the Chesapeake Bay Nonpoint Source Pollution Abatement Program, or developed for volunteers seeking the limited liability protection under § 83.206 (relating to limitation of liability)] for a VAO.

(1) Manure storage facilities shall be designed, constructed, located, operated, maintained, and, [when] if no longer used for the storage of manure, removed from service, [to prevent the pollution of] in a manner that protects surface water and groundwater quality, and prevents the offsite migration of pollution, by

meeting the standards contained in the *Manure Management Manual and the Pennsylvania Technical Guide*, except [**when**] if these standards conflict with this subchapter.

(2) In addition to complying with paragraph (1), manure storage facilities shall be designed and located in accordance with the following criteria:

(i) Facilities shall comply with the applicable criteria in § 91.36 (relating to pollution control and prevention at agricultural operations).

(ii) Facilities shall comply with the applicable criteria in Chapter 105 (relating to dam safety and waterway management).

[(ii)] (iii) * * *

[(iii)] (iv) * * *

[(iv)] (v) For [**agricultural operations**] VAOs that were producing livestock or poultry on or before October 1, 1997, facilities, except reception pits and transfer pipes, may not be constructed:

* * * * *

(F) Within 200 feet of a perennial stream, river, spring, lake, pond, reservoir or any water well [**where these facilities**] if a facility (except permanent stacking and compost facilities) [**are**] is located on slopes exceeding 8% or [**have**] a facility has a capacity of 1.5 million gallons or greater.

(G) Within 200 feet of a property line, [**where these facilities**] if a facility (except permanent stacking and compost facilities) [**are**] is located on slopes exceeding 8% [**, where**] and if the slope is toward the property line, or [**have**] a facility has a capacity of 1.5 million gallons or greater, unless the landowners within the 200 foot distance from the facility otherwise agree and execute a waiver in a form acceptable to the Commission.

[(v)] (vi) For [**agricultural operations on**] VAOs agricultural operations that come into existence after October 1, 1997, facilities, except reception pits and transfer pipes, may not be constructed:

* * * * *

(F) Within 200 feet of a perennial stream, river, spring, lake, pond, reservoir or any water well [**where these facilities**] if a facility (except permanent stacking and compost facilities) [**are**] is located on slopes exceeding 8% or [**have**] has a capacity of 1.5 million gallons or greater.

(G) Within 300 feet of a property line, [**where these facilities**] if a facility (except permanent stacking and compost facilities) [**are**] is located on slopes exceeding 8%, [**where**] and if the slope is toward the property line, or [**have**] a facility has a capacity of 1.5 million gallons or greater, unless the landowners within the 300 foot distance from the facility otherwise agree and execute a waiver in a form acceptable to the Commission.

[(vi)] (vii) The Commission or a delegated conservation district may waive the distance restrictions in subparagraph [(iv)] (v)(A), (B) and [(E)—(G)] (F), if the following can be demonstrated to the satisfaction of the Commission or a delegated conservation district:

(A) The siting restrictions contained in subparagraph [(iv)] (v) would make the placement economically unreasonable or physically impractical.

* * * * *

(3) The designer of the manure storage facility [**required by**] described in the plan shall address the following:

* * * * *

(iii) An onsite investigation to evaluate the site suitability for a facility in accordance with the standards in the *Manure Management Manual and the Pennsylvania Technical Guide*.

(b) The repair of an existing manure storage facility that is part of a plan developed for a VAO under the act shall comply with applicable standards in the *Manure Management Manual and the Pennsylvania Technical Guide*. The location standards do not apply to these facility repairs.

(c) The site specific design for the construction, expansion or major repair of a liquid or semisolid manure storage facility covered under the act shall be done or approved by an engineer registered in this Commonwealth. The engineer shall certify that the design complies with the applicable design standards described in the *Manure Management Manual and the Pennsylvania Technical Guide*. **At least 2 weeks prior to installation of the facility or the repair, the registered engineer shall submit a verification (including a quality assurance inspection plan for construction) to the Commission or delegated conservation district documenting that the design, meeting the criteria established in the *Manure Management Manual and the Pennsylvania Technical Guide*, has been completed, and that any applicable setback requirements have been met.** The responsible engineer and construction contractor shall certify to the Commission or delegated conservation district that construction of the manure storage facility was completed according to the design and construction standards.

(d) A written site specific contingency plan, developed in accordance with the standards contained in the *Pennsylvania Technical Guide*, addressing actions to be taken in the event of a manure leak or spill from a manure storage facility covered under the act, shall be developed and kept onsite at the operation. In the case of a leak or spill of manure from a manure storage facility covered under the act, the operator is responsible for implementation of the site specific contingency plan developed for the operation. The contingency plan shall contain information necessary to meet the notification requirements for reporting leak or spill events which would result in pollution or create a danger of pollution to surface water or groundwater contained in § [101.2(a)] 91.33 (relating to incidents causing or threatening pollution).

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PLAN REVIEW AND IMPLEMENTATION FOR [VOLUNTEERS OR FINANCIAL ASSISTANCE RECIPIENTS] VAOs

§ 83.471. Initial plan review and approval.

(a) Plans or plan amendments for [**agricultural operations other than CAOs**] VAOs may be submitted for initial review and approval to delegated conservation districts or alternatively to the Commission for agricultural operations located in counties not delegated admin-

istrative authority under § 83.241 (relating to delegation to local agencies). A person performing the plan review shall be certified in accordance with the Department of Agriculture's nutrient management specialist certification requirements in 7 Pa. Code [§§ 130b.1—130b.51] Chapter 130b (relating to nutrient management certification).

(b) A plan or plan amendment [voluntarily] developed for [an agricultural operation other than a CAO] a VAO and submitted to the Commission or delegated conservation district shall be deemed approved unless disapproved by the Commission or conservation district within 90 days of receipt of a complete plan or plan amendment. The notice of determination to [modify or] disapprove a plan or plan amendment shall be provided in writing to the operator submitting the [same] plan or plan amendment and shall include an explanation specifically stating the reasons for [modification or] disapproval. The Commission or delegated conservation district shall, within 10 days from the date of receipt of the plan or plan amendment, provide notice to the operator indicating [any missing or incomplete elements of the plan submission] whether all of the required plan elements have been received.

(c) Approvals shall be granted only for those plans or plan amendments that satisfy the requirements of [the act and] this subchapter.

§ 83.472. Plan implementation.

(a) Plans developed and approved for [non-CAOs as a condition for receiving financial assistance under the act or the Chesapeake Bay Nonpoint Source Pollution Abatement Program, or for volunteers seeking the limited liability protection under § 83.206 (relating to limitation of liability),] VAOs shall be implemented in accordance with the implementation schedule contained in the plan as agreed upon by the operator and the Commission or a delegated conservation district.

(b) [Whatever adjustments are made in the implementation of the approved plan, the nutrient] Nutrient application rates shall be [balanced] developed as described in § 83.403 (relating to determination of nutrient application rates) and shall be implemented upon approval of the plan or plan amendment, as applicable. The [owner,] operator [or nutrient management specialist] shall review the approved plan at least annually to ensure that this condition is met.

(c) At least every 3 years, the approved plan shall be reviewed by a commercially or individually certified nutrient management specialist. If the agricultural operation is still consistent with the approved plan and the nutrient content and soil test values used in the plan have not significantly changed, and the accepted reference factors used in the plan have not changed since approval, the specialist shall provide notice of this to the reviewing agency. A plan amendment shall be submitted to the reviewing agency in accordance with § 83.471(a) (relating to initial plan review and approval), if the agricultural operation has changed from that described in the approved plan [(see), as required by § 83.481 (relating to plan amendments)]].

(d) Limited liability protection, as described in § 83.206 (relating to limitation of liability), is afforded to those operators properly implementing an approved plan under this subchapter.

PLAN AMENDMENTS AND TRANSFERS FOR [VOLUNTEERS AND FINANCIAL ASSISTANCE RECIPIENTS] VAOs

§ 83.481. Plan amendments.

(a) [For plans approved for non-CAOs as a condition for receiving financial assistance under the act or the Chesapeake Bay Nonpoint Source Pollution Abatement Program, or for volunteers seeking the limited liability protection under § 83.206 (relating to limitation of liability) a] A plan amendment is required [when] if the operator of [an agricultural operation] a VAO expects to make significant changes in the management of nutrients from those contained in the approved plan. Those significant changes in the management of nutrients which would require a plan amendment are [as follows] any one of the following:

* * * * *

(3) [When] If calculations in the plan as originally submitted are in error, or if figures used in the plan are inconsistent with those contained in the *Pennsylvania Agronomy Guide* and [the *Manure Management Manual*] associated fact sheets and manuals, and adequate written justification has not been given for the inconsistency.

(4) [When] If a BMP different [BMP] than that called for in the approved plan is proposed to address a manure management or stormwater management concern.

(5) [When] If, after the first 3 years of implementing the plan, actual yields are less than 80% of the expected crop yields used in the development of the plan.

(6) [When] If an operation changes from a [non-CAO] VAO status to a CAO [, and the original plan needs to be updated to include those items required of only CAO plans] .

(7) A change in excess manure utilization arrangements as described in the approved plan. No amendment is required to address the loss of an importer if the loss does not impair the operator's ability to properly manage the manure generated on the operation.

(8) If alternative organic nutrient sources will replace or augment nutrient sources described in the plan.

(9) If additional lands are brought into the operation through purchase, lease or renting.

(10) If there is a change in the manure management system that is expected to result in a significant change in the manure nutrient content.

(b) A plan amendment [, as required in] under subsection (a), shall be developed and certified by a nutrient management specialist and shall be submitted to the reviewing agency in accordance with § 83.471(a) (relating to initial plan review and approval).

(c) Plan updates to address operational or computation changes other than those described in

subsection (a) shall be developed and certified by a commercial or individual nutrient management specialist and retained at the operation and submitted to the district for inclusion in the approved nutrient management plan.

**CONTAGIOUS DISEASE EMERGENCIES ON
[VOLUNTEER OR FINANCIAL ASSISTANCE
OPERATIONS] VAOs**

§ 83.491. Manure management in emergency situations.

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(c) Unless otherwise directed by the quarantine, **[those volunteers receiving financial assistance under the act or the Chesapeake Bay Nonpoint Source Pollution Abatement Program, or those volunteers seeking the limited liability protection under § 83.206 (relating to limitation of liability),] VAOs** shall develop an amended plan addressing the manage-

ment of manure under the quarantine. This plan shall be certified by a nutrient management specialist prior to implementation and submitted to the reviewing agency within 30 days of implementation.

* * * * *

(f) The application of manure during the quarantine shall be done in accordance with § 83.404 **[(5)] (f)** (relating to nutrient application procedures).

(g) Standard soil tests will be required each year for crop **[fields] management units** when the implementation of the quarantine required that nutrients be applied in excess of the amount the crop can use, **and continue for 3 successive years thereafter**. In addition to the standard test, an appropriate test indicating the amount of nitrogen available for crop uptake shall be required for 1 year beyond the cessation of excess manure application.

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