

RULES AND REGULATIONS

Title 25—ENVIRONMENTAL PROTECTION

STATE CONSERVATION COMMISSION

[25 PA. CODE CH. 83]

Nutrient Management Regulations

The State Conservation Commission (Commission) by this order adopts Chapter 83, Subchapter D (relating to nutrient management). These final regulations implement major provisions of the Nutrient Management Act (act) (3 P.S. §§ 1701—1719) by establishing criteria, nutrient management planning requirements, an implementation schedule and financial assistance for the application of nutrient management measures on certain agricultural operations which generate or utilize animal manure. The proposed regulations were published at 25 Pa.B. 6161 (December 30, 1995).

This order was adopted by the Commission at its meeting of March 13, 1997.

A. *Effective Date*

These regulations will go into effect on October 1, 1997.

B. *Contact Person*

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C. *Statutory Authority*

This final rulemaking is being made under the authority of section 4(1) of the act (3 P.S. § 1704(1)), which requires the Commission to promulgate regulations establishing minimum criteria for nutrient management plans and other requirements necessary to implement the act; 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 carryout its functions; and 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 and the Department of Agriculture.

D. *Background and Summary*

The act was enacted in May 1993, to improve farm efficiency and prevent the nonpoint source pollution of surface water and groundwater from agricultural nutrients. It requires the Commission, in conjunction with the Department of Agriculture, the Department, 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. Nitrogen is identified in the act as the nutrient of primary concern. The Commission is also required to provide education, technical assistance and financial assistance to the agricultural community regarding proper nutrient management.

Section 503(d) of the Conservation and Natural Resources Act which was enacted July 1, 1995, modified the authority and responsibility of the Commission, the Department and the Department of Agriculture under the act. An office and staff were created within the Department of Agriculture to assist in the development, implementation and enforcement of Commission programs that solely affect production of agriculture, including the nutrient management program. The staff of both the Department and the Department of Agriculture provided critical support to the Commission and the Advisory Board in the development of these final regulations and other components of the nutrient management program.

The Commission developed these final regulations in conjunction with the Advisory Board as required by the act. The Advisory Board, which represents a wide range of agricultural, governmental, environmental and private interests, provided diligent assistance to the Commission for the last 3 1/2 years in an effort to develop workable and effective final regulations. It is estimated the Advisory Board volunteered in excess of 15,000 hours to this effort. The final regulations were also developed with the assistance of the major farm organizations, county conservation districts, the Penn State Cooperative Extension and the Natural Resources Conservation Service (NRCS).

These final regulations directly affect the concentrated animal operations (CAOs) that are required to plan under the act as well as other agricultural operations that voluntarily plan under the act or receive financial assistance under the act or the Chesapeake Bay Nonpoint Source Pollution Abatement Program. Only about 5%-10% of agricultural operations in this Commonwealth will meet the criteria for mandatory planning under the act. The Commission is working to obtain the voluntary participation of other agricultural operations in the nutrient management program. The final regulations were developed to streamline planning and other requirements, where possible, to encourage maximum voluntary participation by non-CAOs. The Commission believes that a strong voluntary program must operate simultaneously with the mandated regulatory program to assure proper nutrient management.

Nutrient management plans for CAOs are required to be developed by nutrient management specialists certified by the Department of Agriculture. Additionally, plans are to be submitted to the Commission or delegated county conservation districts for approval. Nutrient management planning responsibilities for CAOs and for other agricultural operations that develop voluntary plans or as a condition for receiving financial assistance under the act or the Chesapeake Bay Nonpoint Source Pollution Abatement Program are set forth in detail. 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. Manure management procedures in emergency situations where there is an outbreak of contagious disease must be consistent with the existing quarantine requirements set by the Department of Agriculture. Agricultural operations may apply for financial assistance to implement nutrient management plans as well as incentives to develop nutrient management plans. CAOs shall receive priority funding. Commission responsibilities for administering and enforcing the act and regulations may be delegated to local county conservation districts.

Agricultural operations that are fully and properly implementing an approved nutrient management plan are offered a limited liability protection as well as protection from fines and penalties for damages alleged to have been caused by the management or utilization of nutrients under the implementation of a plan (see section 13 of the act (3 P. S. § 1713)). In accordance with section 17 of the act (3 P. S. § 1717) (relating to preemption of local ordinances), local municipalities may not regulate nutrient management practices or manure storage facilities in a manner that is inconsistent with or more stringent than the requirements of the act and these regulations.

E. Summary of Changes

Section 83.201—Definitions

New definitions have been included for the terms "critical runoff problem areas," "mechanical incorporation of manure" and "spring." Definitions of the terms "erosion," "sediment," "sedimentation" and "conservation plan" have been deleted from the final rulemaking. The definition of "farming resources" has been revised to clarify what lands are part of an operation and, therefore, required to be in the plan. Minor changes have been made to other definitions.

Section 83.202—Scope

Language has been added to clarify that this subchapter also specifies minimum criteria and requirements for nutrient management plans on agricultural operations that receive financial assistance under the act or under the Chesapeake Bay Nonpoint Source Pollution Abatement Program. Language has also been added stating that this subchapter also specifies the criteria for the awarding of financial incentives for the development of nutrient management plans.

Section 83.204—Applicability of requirements

Changes have been made to clarify which sections of the regulations are applicable to CAOs and which are applicable to volunteers planning under the act. A phrase clarifying that these requirements also apply to those operations receiving financial assistance under the act or the Chesapeake Bay Nonpoint Source Pollution Abatement Program has also been added.

Section 83.205—Preemption of local ordinances

This new section outlines the preemption of local ordinances provisions set forth in section 17 of the act.

Section 83.206—Limitation of liability

This new section outlines the limitation of liability provisions found in section 13 of the act (3 P. S. § 1713).

Section 83.207—Compliance assistance and enforcement

This new section tracks the relevant portions of section 503(d) of the Conservation and Natural Resources Act, which modified the authorities and responsibilities of the Commission, the Department and the Department of Agriculture.

Sections 83.211—83.216—Plan development incentives program

These sections set forth the criteria for the awarding of financial incentives for the development of nutrient management plans. This funding is in addition to that set forth in the financial assistance provisions of the regulation which outline the criteria for the awarding of financial assistance for the implementation of nutrient management plans.

Section 83.223 (Formerly § 83.353)—Financial assistance eligibility criteria

Language has been added to clarify that only those best management practices (BMPs) listed in an approved plan or plan amendment will be eligible for financial assistance.

Section 83.224 (Formerly § 83.355)—Project evaluation and prioritization criteria

Language has been added outlining the prioritization criteria for applications for financial assistance. CAOs shall receive priority evaluation from October 1, 1997, to September 30, 1998. CAOs producing livestock on October 1, 1997, receive first priority.

Section 83.225 (Formerly § 83.354)—Application procedure

Language has been added clarifying that the Commission's actions on financial assistance applications may be appealed to the Environmental Hearing Board as set forth in section 15 of the act (3 P. S. § 1715).

Section 83.226 (Formerly § 83.356)—Eligible costs for the implementation of an approved plan

Language has been added to this section to clarify that the costs eligible for financial assistance are those necessary for the implementation of an approved plan.

Section 83.229 (Formerly § 83.359)—Grants

The funding limits for the maximum amount of a grant award have been deleted from the final regulations. Maximum grant limitations will be those established in policy by the Commission.

Section 83.231 (Formerly § 83.361)—Funding limitations

Maximum limits for total assistance provided under loans, grants and loan guarantees have been deleted in the final regulations. Total funding limits will be established in policy by the Commission.

Section 83.232 (Formerly § 83.362)—Implementation and reporting

Language has been added to subsection (d) requiring that a request for disbursement of approved financial assistance must include a statement certifying that a project or BMP was completed as planned. Language has been added to subsection (e) requiring that financial assistance recipients keep financial expenditures and plan implementation records.

Section 83.233 (Formerly § 83.363)—Delegation of financial assistance

Changes have been made which state that the Commission retains final approval authority for all applications for financial assistance. The Commission has the ability to delegate the authority to review and make recommendations on financial assistance applications to an agent. However, the final approval authority rests with the Commission.

Section 83.251 (Formerly § 83.381)—Compliance plans

Changes to this section clarify that those plans required on operations found to be in violation of The Clean Streams Law (35 P. S. §§ 691.1—691.1001) shall meet the same requirements for those plans on CAOs.

Section 83.261 (Formerly § 83.211)—General

Dates have been added reflecting the effective date of these regulations, that is October 1, 1997, and setting

forth the deadlines by which CAOs are required to submit a nutrient management plan.

Section 83.262 (Formerly § 83.212)—Identification of CAOs

A sentence has been added to subsection (a)(1)(i) stating that for those animal types not appearing in the accompanying Table A, the average animal weight for the particular operation may be used. The restriction which required that land suitable for manure application, for the sole purpose of CAO calculation, be located within 10 miles of the point of manure generation has been deleted.

Section 83.272 (Formerly § 83.222)—Content of plans

Cross reference clarifications have been made to coincide with the splitting of the regulations to two main parts, the first applicable to CAOs, the second to volunteers. Also included is new language in subsection (d) which requires the BMPs listed in a plan to be consistent with other plans developed for the particular operation such as a conservation plan.

Section 83.281 (Formerly § 83.223)—Identification of agricultural operations and acreage

Language has been added requiring the operator's concurrence on the nutrient management plan. The nutrient management specialist preparing the plan is also required to indicate his nutrient management certification identification number. Information on the availability of NRCS soil survey maps, with soil identification legends, has also been added to the final regulations.

Section 83.282 (Formerly § 83.224)—Summary of plan

Changes have been made requiring a plan summary that contains a chart which lists the total amount of manure generated on the operation annually, the total amount of manure to be used on the operation annually and the total amount of manure to be exported from the operation annually.

Section 83.291 (Formerly § 83.231)—Determination of available nutrients

Several changes have been made to this section in the final rulemaking as summarized as follows:

1. Language has been changed in subsection (b)(1) to clarify that the plan must include the average number of animals of each type on a typical production day on the agricultural operation.
2. Subsection (b)(2) has been changed to require the storage capacity of any present manure storage facilities to be considered when developing the plan.
3. The requirement for manure sampling and chemical analysis contained in subsection (b)(3) has been deleted. Manure sampling is now recommended, but standard book values such as those contained in the *Manure Management Manual* or the *Pennsylvania Agronomy Guide* may be used. The nutrient content of the manure is required to be recorded in the plan. CAOs exporting manure are required to test manure.
4. A sentence has been added to subsection (c) clarify that the amount of nitrogen available in the manure and the planned manure incorporation times are required to be included in the plan.
5. The soil testing requirements of subsection (e) have been clarified. Soil tests are required for the initial plan development, however, soil tests conducted within the previous 3 years are acceptable. Subsequent soil tests are

required at least every 6 years. Soil tests are not required to be submitted with the plan but shall be kept on record at the operation.

Section 83.292 (Formerly § 83.232)—Determination of nutrients needed for crop production

This section has been significantly revised to provide more flexibility in determining expected crop yields.

Section 83.293 (Formerly § 83.233)—Determination of nutrient application rates

Language has been included to clarify that the planned manure application rates based on nitrogen are required to be included in the plan.

Section 83.294 (Formerly § 83.234)—Nutrient application procedures

Significant changes have been made to paragraph (5) which contains manure spreading restrictions. Manure spreading is prohibited within 100 feet of an open sinkhole and within 100 feet of an active private drinking water well unless the manure is mechanically incorporated within 24 hours. The proposed regulations contained a complete prohibition on manure spreading in these areas. Other changes include the clarification of spreading restrictions within concentrated water flow areas where vegetation is maintained versus where vegetation is not maintained. Additionally, other water sources such as springs, agricultural drainage systems and pipe outlet terraces have been included in the spreading prohibitions. Finally, other changes clarify that certain spreading restrictions only apply where surface water flow is toward the particular area.

Section 83.301 (Formerly § 83.201)—Excess manure utilization plans for CAOs

Language has been added to clarify that the estimated amount of excess manure to be exported from the operation shall be included in the plan.

Section 83.311 (Formerly § 83.251)—Manure management

Language has been added to clarify that the nutrient management specialist may seek the expertise of NRCS or conservation district personnel in reviewing the adequacy of manure management practices on a particular operation. The review is required to take into consideration the normal climatic conditions of the area. Further clarifications have been made to clarify that the nutrient management plan is not to include specific designs for BMPs to address any identified problem areas, but that the operator is responsible for obtaining the necessary BMP designs to implement those practices contained in the approved plan.

Section 83.321 (Formerly § 83.261)—Stormwater runoff control

This section has been significantly revised from the proposed regulation. The requirement for an erosion and sedimentation control plan meeting the requirements of Chapter 102 (relating to erosion control) to be included as part of a nutrient management plan under the act has been deleted. Nutrient management plans developed under the act are now required to include BMPs to address critical runoff problem areas in fields, crop lands and pastures. Critical runoff problem areas are defined in the definition section as those nonvegetated water flow areas and those areas where runoff containing nutrients that were applied after the growing season directly discharge into surface water or groundwater. These critical areas must be addressed on owned and rented land. Further-

more, language has been added to clarify that these regulations do not relieve operations from complying with the existing requirement for an erosion and sedimentation control plan contained in Department regulations in Chapter 102.

Section 83.331 (Formerly § 83.271)—Implementation schedule

Language has been added to clarify that the implementation schedule contained in a plan on a CAO is consistent with the implementation deadlines of § 83.362.

Section 83.341—General recordkeeping requirements

This new section of the recordkeeping portion of this regulation specifies that records that are required to be kept under the subchapter are not required to be submitted to the Commission or delegated conservation district, but are required to be retained by the agricultural operation for at least 3 years.

Section 83.342 (Formerly § 83.291)—Recordkeeping related to the application of nutrients

Amendments have been made to clarify that this provision of the regulation applies to recordkeeping for nutrient management plans developed for CAOs and that crop yield records may be estimates.

Section 83.343 (Formerly § 83.292)—Alternative manure utilization recordkeeping

Subsection (f) has added the requirement that operators of CAOs exporting manure determine the nutrient content of the manure using manure sampling and chemical analysis methods outlined in the *Manure Management Manual* or the *Pennsylvania Agronomy Guide*. Additional changes clarify which CAOs must submit manure export records.

Section 83.344 (Formerly § 83.293)—Exported manure information packets

In addition to minor clarifications, this section has been amended to require that a CAO exporting manure is required to provide information to the importer relating to the nutrient content of manure, applicable sections of the *Manure Management Manual* and an informational publication on proper nutrient management. Subsection (c) has also been amended to state that the exporter is required to provide the items listed only if the Commission or delegated conservation district makes available those documents.

Section 83.301—Recordkeeping for manure transfers from CAOs

Because of the restructuring of these final regulations into two main parts which specify the planning requirements for CAOs and volunteers respectively, this section has been deleted from the final regulations.

Section 83.302—Exporting manure informational packets for distribution by CAOs

Because of the restructuring of the final regulations, this section has also been deleted from the final regulations.

Section 83.351 (Formerly § 83.311)—Minimum standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities

This section which specifies the standards for manure storage facilities on CAOs have been significantly amended from the proposed regulations. These amendments are summarized as follows:

1. Language has been added to specify that these standards also include criteria for the removal from service of manure storage facilities constructed or expanded as part of a nutrient management plan.

2. Subsection (a)(2) which required Commission or district approval of a particular design that did not exist in the *Pennsylvania Technical Guide* has been deleted. All manure storage facilities must be designed consistent with the standards in the *Pennsylvania Technical Guide*.

3. The setback provisions related to the manure storage facilities have also been amended. Two separate subsections have been created that specify setback requirements for operations producing livestock or poultry on or before October 1, 1997, and those coming into existence after October 1, 1997, respectively. Setback requirements from active public drinking water supplies have been included. These setbacks apply unless other State or Federal laws require a greater isolation distance. The property line setback requirement has been increased for those CAOs coming into existence after October 1, 1997.

4. The waiver criteria of subsection (a)(2)(vi) have been amended to provide that the waiver provisions only apply to CAOs that were producing livestock on or before October 1, 1997, with the exception of the setbacks from public drinking water supplies. Additional language has also been added to specify that there shall be no waivers from the setback requirements of manure storage facilities regardless of when the operation came into existence for public water supplies. The waiver language has also been revised to state that where a waiver is requested from a private water well, the well must meet the construction criteria that the Commission, in consultation with the NRCS, deems necessary to protect water quality.

5. Contingency plans for manure storage facilities must be developed in accordance with the standards contained in the *Pennsylvania Technical Guide*. Language has also been added incorporating § 101.2(a) (relating to incidents causing or threatening pollution) by reference, which sets forth the existing notification requirements for the reporting of a leak or spill.

Section 83.361 (Formerly § 83.321)—Initial plan review and approval

The provision of subsection (a) which authorized a 45-day deemed approval for volunteer plans has been deleted from the final rulemaking. Additional amendments require the Commission or delegated conservation district to notify the operator of any missing or incomplete plan components within 10 days of receipt. Subsection (d) has been amended by deleting the term "person" and replacing it with the term "operator."

Section 83.362 (Formerly § 83.322)—Plan implementation

Subsection (d) was added to remind operators that the limited liability protection of § 83.206 is provided to those operations properly implementing an approved plan.

Section 83.371 (Formerly § 83.331)—Plan amendments

Amendments clarify criteria that trigger a required plan amendment. Specific clarifications require plan amendments when the figures used in the plan are inconsistent with those contained in the *Manure Management Manual* or *Pennsylvania Agronomy Guide* unless otherwise justified; when a different BMP other than that contained in the plan is proposed; and when, after the first 3 years of implementation, actual yields are less than 80% of the expected crop yields used in the plan.

Section 83.372 (Formerly § 83.332)—Amendments due to unforeseen circumstances

Language has been added to clarify that amendments under this section are not required to be reviewed and approved by the Commission prior to implementation, but are required to temporarily become part of the plan until normal operations are resumed. Amendments under this section must be submitted to the district within 30 days of implementation. Other amendments clarify examples of unforeseen circumstances that would cause a significant change in the management of nutrients.

Section 83.373 (Formerly § 83.333)—Plan transfers

Subsection (b) has been amended to allow for the submission of any necessary plan amendments before actual notice of the transfer is provided to the Commission or delegated conservation district.

Section 83.381 (Formerly § 83.341)—Manure management in emergency situations

Amendments have been added encouraging the harvesting of cover crops to facilitate excess nutrient removal incurred as a result of a manure quarantine, and clarifying that soil tests will be necessary for crop fields where the quarantine required that nutrients be applied in excess of the amount the crop can use.

Sections 83.391—83.491—Nutrient management for volunteer or financial assistance agricultural operations

These new sections specifically outline the planning requirements for volunteer operations and those operations receiving financial assistance under the act or the Chesapeake Bay Nonpoint Source Pollution Abatement Program. Instead of cross referencing the requirements for volunteers, the nutrient management planning requirements for these operations are set forth in detail. Requirements for volunteers and financial assistance plans differ from those in the following major areas:

1. *Section 83.441—implementation schedule.* Volunteers are not required to comply with the strict implementation time frames for CAOs.
2. *Section 83.452—recordkeeping.* Recordkeeping for nutrient application for volunteers has been streamlined.
3. *Section 83.453—alternative manure utilization recordkeeping.* Volunteers are not required to maintain manure export or alternative manure utilization records with the same detail as those required for CAOs.
4. Clarifications have been made to §§ 83.452, 83.461, 83.472 and 83.481 which state that these sections apply to agricultural operations receiving financial assistance under the act and those seeking the limited liability protection contained in § 83.206 and section 13 of the act.

F. Summary of Major Comments and Responses on Proposed Rulemaking

Requirements of volunteers

Comment: To encourage volunteer participation in the program, the development of a separate area of the regulations for volunteers is needed.

Response: The Commission agrees with the comment and has divided the subchapter into two main parts, the first outlining the requirements of CAOs, and the other outlining the requirements of volunteers. The Commission recognizes that this revision has increased the length of the subchapter, but believes that this revision was needed to better explain the requirements of the volunteer participants in a more user friendly format.

Preemption of local ordinances

Comment: The general provisions area of the regulations would be an appropriate area to add language regarding the preemption of local ordinances into the regulations. Section 17 of the act provides language that should be included in this area of the regulations to provide reference to this important provision of the act.

Response: The Commission agrees with the comment and has included this language from the act into the final regulations in § 83.205. This will assure that interested parties recognize the role the act and these regulations play in assuring consistent nutrient management efforts across this Commonwealth.

Financial assistance

Comment: Sections 83.351—83.363 outline procedures and conditions for financial assistance, but do not reflect that CAOs should receive priority over voluntary, non-CAOs in receiving financial assistance. If it is acceptable to “single out” certain operators for more stringent regulation, then it seems only fair that these same operations have priority in receiving any financial assistance available to help offset the cost of compliance.

Response: The Commission agrees with the comment and has revised the final regulations to state that CAOs receive the highest priority status for distribution of BMP implementation funding.

Comment: If the Commission believes it has the authority to delegate the administration of the financial assistance program, it is requested that it provide specific legal authorization for the delegation.

Response: Section 83.233 of the final regulations has been revised to state that the Commission will retain final approval authority for all applications for financial assistance for plan implementation.

Comment: Setting a limit on the amounts of funds available through a grant will not necessarily further the purpose of the act. Instead, the Commission should limit funds on a case by case basis to assist those farmers who cannot afford to put the necessary protections in place with their own funds. Expensive manure storage facilities should not be required by the regulations, except in rare situations. There should be some limiting language that would allow no more than 50% of the cost be provided to a farmer through grant or loan money. This would be consistent with § 83.356, to implement the plan, and within § 83.251(c)(1), which implies that the money for storage facilities may not be the most cost-effective option when compared to other BMPs.

Response: To provide for maximum flexibility in future program needs, the financial limits for loans and grants have been deleted from the final regulations and will be set by Commission policy. This will avoid the need to change the regulations when significant changes in the cost of implementing BMPs or the farm economy occur. The regulations specifically state that manure storages are not required for all plans developed under the act. The evaluation of BMPs will require consideration of all alternative methods to protect surface water and groundwater including least cost alternatives. The operator is to be involved in selecting BMPs which will best be incorporated into the operation.

Identification of CAOs

Comment: The individual farmer should be the one who determines whether it is reasonable to apply manure to a field 5, 10 or 15 miles away rather than have a

governmental entity set an arbitrary standard. It is recommended eliminating § 83.262 from the final-form rulemaking.

Response: The Commission, in conjunction with the Advisory Board, has discussed this issue at length and has revised § 83.262. The 10-mile limit has been eliminated because some farmers currently transport manure as part of their normal operation more than 10 miles for application, and this will probably become more common in the future. This change will allow operators to include land any distance from the animal facility for purposes of CAOs calculations, as long as the land is to be used for the application of manure generated on the agricultural operation. This will eliminate the need for a mileage restriction.

Determination of available nutrients

Comment: Current wording in § 83.231 is unclear to what the farmer is required to do. Are they required to soil test, and if so, how often.

Response: The Commission has reworded this section to state that soil tests are required at least every 6 years.

Comment: There should be no requirement that manure be tested as indicated in § 83.231(b)(3). Available data indicates that manure sampling and testing results may vary to a degree that they are of no more value than standard book values. In some cases, this may be a valuable farm management tool. It should be an individual farm operator decision, not mandated by regulation.

Response: The Commission agrees that manure testing, when done improperly, or under circumstances that are not representative for the system, can give results that may not be representative of the manure to be applied. The Commission also understands the burden that proper manure testing may place on some producers and has, therefore, revised the final regulations to allow for the use of book values or manure tests. The Commission still recognizes the importance of proper manure testing and still encourages its proper use for the development of the plan. The Commission did retain the requirement for manure testing for those CAOs exporting manure to provide nutrient information to importers. This manure test information will then be documented on the manure transfer sheet provided to the importer.

Determination of nutrients needed for crop production

Comment: Most producers do not have the crop yield records required, and using the soil productivity information would limit the farmers' ability to fertilize their land. Let the farmer select a yield goal, if it is too high let the reviewer and the farmer determine what an acceptable goal would be.

Response: The Commission, along with the Advisory Board, has discussed this issue at length and has revised this section of the final regulations to state that initial yield goals need to be realistic for the given soil types in the given location. This change has been made with the understanding that not all farms have yield data available for their acreage, and book values may be outdated for some soil types. For future plan updates and amendments, expected yields need to be based on yield records, which will allow some flexibility for the farmer to plan for optimistic yields that are realistic. The Commission is attempting to give some flexibility to the farmer in determining these expected yields, with the understanding that the plan reviewer will be evaluating the plan to assure yield goals are not unrealistic. Where the reviewer

sees that the yield goals are higher than shown to be realistic for the area, the farmer will need to provide documentation to support the use of the higher yield goals.

Nutrient application procedures

Comment: Section 83.294(1)(iv)—(vi) each include the wording "during times when soil is frozen, snow covered or saturated," should be removed from each. These areas should be protected regardless of the physical condition of the soils.

Response: The Commission recognizes that manure properly applied to meet crop needs, and at times when soil conditions are right for the nutrients to be absorbed into the soil, can be a very important and safe source of nutrients to meet crop needs, even in those areas adjacent to water bodies.

Comment: What is the basis for the application setbacks? Other State programs are inconsistent with the proposed regulations, such as residual waste regulations for sewage sludge which require on agricultural land a 300 feet isolation distance from drinking water sources and 1,000 feet upstream from surface water intakes. The *Manure Management Manual* is also in conflict with these setback provisions. The Commission needs to review all of the current regulations and laws governing the protection of water quality to determine if these new limitations are either consistent, more stringent or new standards. The Commission will need to justify the standards if they are either new or more stringent. If these standards cannot be justified, they should be deleted and replaced with a more reasonable standard that will achieve the necessary protection.

Response: Other State programs such as those related to sewage sludge are still in effect and would continue to address applications of these products. The *Manure Management Manual* provided the basic guidelines for the development of these manure application setbacks outlined in these regulations. These regulations provide further refinement of the application setbacks provided for in the current version of the *Manure Management Manual*. This refinement is needed to assure that the agricultural community thoroughly understands its requirements and the agencies involved with the program can consistently oversee program implementation. The *Manure Management Manual* is proposed to be revised consistent with the standards set in these regulations.

Comment: In relation to the application setback from private wells, what do these limits mean with regard to any of the specified situations on adjacent property not under the control of the operator? Will he lose the availability of that land for manure application?

What if a plan is already approved and implemented and any of these conditions then occur on an adjacent property, will the farmer have to change his approved nutrient management plan?

Is it a property right issue when an adjacent landowner can impose limits on the use of an individual's property?

Response: The regulations have been revised to allow for the application of manure within the private well setback area if the manure is incorporated within 24 hours of application. With this revision, a farmer could continue to apply manure up to the property line even if a neighboring landowner installed a private well within 100 feet of the property line.

Manure export plan

Comment: Section 83.281 provides guidance for excess manure utilization plans for CAOs and raises two questions.

(a) Why do known manure importers, their available acreage, and the estimated amount that each could import all need to be recorded as part of the exporter's plan when the importer has no obligation under the law?

(b) Why is this paper trail required for manure exporters when no requirements exist for commercial fertilizer dealers who have no direct responsibility for how their products are used by their customers?

Recommendation: When manure leaves the farm where it was generated it should be considered to be nothing other than organic fertilizer and subject to no more stringent requirements or regulations than other organic fertilizers.

Response: Unless the importer is a CAO, the importer has no obligation under the act to report manure importing or application information. It was the concern of the Commission and the Advisory Board to assure that this program focused on the better distribution of manure nutrients throughout this Commonwealth, and did not discourage possible manure importers from agreeing to accept manure. The plan is required to demonstrate that the exporter has found a suitable site for the excess manure generated on the participating operation. The records maintained by the exporter indicate that the manure was able to be exported as planned. This information is especially important for the liability protection provisions of the program to assure that the plan is being properly implemented and that the excess manure generated on the operation is exported to an environmentally safe site.

Comment: Section 83.293(a) requires an agricultural operation to provide the importer with an "appropriately" completed Manure Transfer Sheet. What is considered appropriate?

The requirements of § 83.293(b) place an unnecessary burden on CAOs and volunteer operations, and it is requested that the Commission provide strong justification for placing the requirements for providing documents with the exporter. If justification cannot be provided, the deletion of subsection (b) from final-form rulemaking is recommended.

If the Commission provides justification for subsection (b), it is not clear how an exporting farmer would be encouraged to provide the materials. If the Commission believes this is a reasonable requirement, it should be stated as a requirement rather than a suggestion. If this subsection is retained in final-form rulemaking it should be revised as an enforceable requirement by making the following revisions: "If the manure is to be land applied, the exporter is [encouraged] required to provide the following information to the importer."

Response: The CAO exporting manure best knows the amount and nutrient value of the exported manure at the time of exporting. This information is of critical importance to the importer in calculating the field application rate for the imported manure. The exporter is the most appropriate source of this information because these records are maintained by the exporter. The final regulations require the CAO to document this information on the Manure Transfer Sheet which is given to the importer at the time of the manure transfer. The importer will

then have important information concerning the amount and nutrient content of the manure.

Section 83.293(a)

The word "appropriately" has been deleted from the final regulations.

Section 83.293(b)

The Commission agrees that this is an administrative requirement that can be eliminated from the volunteer's requirements under the act and has done so. However, the Commission continues to believe that it is important for CAOs to provide this information to assure that the importer has the best information to make nutrient application decisions. Therefore, the Commission has revised the regulations to make this provision only applicable to CAOs.

Manure management

Comment: Section 83.201 deals with definitions, and it is important to note that "stormwater management practices" is defined along with others under "BMP—best management practices." This definition was taken directly from the act and is the only reference to stormwater in the act. It should not, therefore, be used as the sole justification for the manure management section of the proposed regulations which mandate stormwater control practices for approved plans. This far-reaching interpretation of language in the act expands upon its intent, and will have a severe detrimental effect on both mandatory and voluntary compliance with its provisions, as well as provide for selective enforcement on those complying with Act 6.

Response: The Commission, along with the Advisory Board, has looked very closely into the issue of including the manure management requirements in a plan and the Commission believes it has the authority to do so. The Commission believes that the runoff from the barnyard and manure management areas of the operation are, in many instances, a major source of nutrient pollution. These areas are of critical importance when developing a plan to minimize nutrient pollution to surface water or groundwater. For this reason, the Commission believes that it is important to address this area in the plan. Also, the inclusion of the barnyard area in the plan will help assure, to the extent possible, that those operations following these regulations will also meet the Federal requirements for a Concentrated Animal Feeding Operation (CAFO), and will not need to do more to comply with this Federal program.

Stormwater runoff control

Comment: Even if it was the intent of the Legislature that some erosion and sedimentation and stormwater runoff controls be possible elements or BMPs in nutrient management plans, it is questionable whether or not it was their desire to go to the extent of mandating the degree suggested by the proposed regulations. The discussion concerning House Bill 100 within the *Legislative Journal-House* February 2 indicated that the House did not want to mandate a linkage between what they perceived to be nutrient management planning and what is clearly conservation planning. Furthermore, the inclusion of E & S Controls and Stormwater Runoff Controls in the proposed regulations for Act 6 presents an opportunity for selective enforcement of existing law on only certain farm operations. It is recommended that § 83.261 (a)(2)—(4) be deleted.

Response: The Commission, with the assistance of the Advisory Board, has looked into this issue very closely

and has worked hard to develop a response to this comment. The Commission recognizes the need for proper stormwater management in fields to assure that manure placed in the field stays where it is applied. But, the Commission also recognizes that Chapter 102 currently requires measures to be taken to address erosion and sedimentation due to agricultural plowing and tilling. The Commission has addressed this comment by deleting the requirement for an erosion and sedimentation control plan (or conservation plan) to be submitted as part of the nutrient management plan under the act. The Commission still recognizes that there are critical areas in fields that need to be addressed to minimize nutrient contamination of surface water and groundwater and the Commission has retained these critical in-field runoff problem areas as areas needing to be addressed as part of the nutrient management plan. These critical in-field runoff problem areas are defined in the regulations as those nonvegetated gullies or ditches that directly discharge into water bodies, and those areas where manure is applied after the growing season, and due to land features, soil cover and the timing of planting the next crop, that will discharge nutrient runoff into surface water or groundwater. These regulations do not alter the existing Department requirement found in Chapter 102 which requires an erosion and sedimentation control plan for agricultural plowing and tilling.

Comment: It is of specific concern that the stormwater requirements will encompass all acreage used in a plan, including rented ground, which in turn raises the question of who is responsible, the owner or the operator?

Response: The Commission has eliminated the need for a full erosion and sedimentation control plan (conservation plan) to be implemented as part of these regulations, but the operator will still need to address critical runoff problem areas (as defined) on both owned and rented land in the operation. The Commission could not justify why a problem area would be critical on owned land, but not rented land. Therefore, the regulations require that these problem areas be addressed for both owned and rented land. An operator of an operation participating in the program will be responsible for addressing the critical runoff problem areas on the operation, including any rented land. For the implementation of BMPs which require construction activities on rented land, the regulations allow for the operator to enter into an agreement with the person owning the rented land to implement the BMP. The *Pennsylvania Technical Guide* provides many nonstructural BMPs that can be implemented at little or no cost to address the critical runoff problem areas on owned and rented land (that is, minimum tillage, no-till, strip cropping, residue management, contour farming, and the like).

Recordkeeping requirements

Comment: Recordkeeping must be kept simple. The Commission should create a simple form that can be distributed by extensions and districts. This will also help to convince farmers to voluntarily participate in the program.

Response: The Commission agrees with this comment. To encourage volunteer participation, the regulations have been divided into two main areas, one for CAOs and one for volunteers. Within the volunteer area, the recordkeeping section has been simplified by reducing the recordkeeping requirements for volunteers. As program implementation and education efforts are developed, simple recordkeeping forms will be provided by the Commission to assist participating operators with the

recordkeeping requirements. It is also expected that crop consultants will also create these types of forms to assist their customers.

Comment: Section 83.292(a) provides that a Manure Transfer Sheet shall be used for all manure transfers from land under the control of agricultural operations falling under the act. For clarification purposes, it is recommended that the regulations be amended to provide that a Manure Transfer Sheet shall be used for all manure transfers from a CAO.

Response: The Commission agrees with the comment and has revised the final regulations to require Manure Transfer Sheets to be used only for manure transfers from CAOs.

Comment: In § 83.292, the Commission needs to clarify the categories of CAOs who must submit copies of Manure Transfer Sheets or Summaries of Manure Transfers to the agency.

Response: The Commission agrees. Language has been added clarifying that all CAOs, other than those exporting to known landowners, will need to submit records within 1 year of plan approval.

Comment: Section 83.301(b) provides that submittal of manure transfer records for subsequent years will be at the discretion of the agency which approved the plan. Criteria is needed to determine when Manure Transfer Sheets will be required to be submitted in subsequent years.

Response: The Commission has revised the final regulations to only require manure export record submission for CAOs within 1 year of plan approval. The final regulations do not authorize the reviewing agency to require record submission after the first year.

Manure storage criteria

Comment: Siting of new manure storage facilities should be prohibited in floodplains.

Response: The regulations require that for those storage facilities to be placed within the floodplain, the construction and location of these storages need to be consistent with local ordinances developed under the Flood Plain Management Act (32 P. S. §§ 679.101—679.601). The *Pennsylvania Technical Guide*, which is the base reference document to be used in providing the standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities, provides the necessary technical standards to assure that facilities built within the floodplain are designed properly for the location. Operators need flexibility in the placement of these facilities to assure these practices can fit into their current operation, and are practical to build and implement.

Comment: Many municipalities have no floodplain ordinances. What restrictions would be permissible on the location of retention pits, lagoons and transfer pipes which could be easily flooded? There is currently a required isolation distance of 100 feet from surface water, wells or sinkholes.

Response: In general, storage facilities, including lagoons, are to be set back from streams, lakes, wells, sinkholes, and the like 100 to 200 feet, depending on the slope of the area and the volume of the facility. Retention pits and transfer pipes are not required to follow the setback distances because in most cases the operator does not have an option of where to place these structures because they need to be placed in or beside the barn

where the manure is generated. Most barns on older operations were placed near the stream or other water source. These manure transfer items are often needed to transfer the manure out of the setback areas. The design of these manure transfer items will need to take into account any possible flood concerns to prevent water pollution, as provided for in the *Pennsylvania Technical Guide*.

Comment: Section 83.311(a)(2) provides that where standards for a proposed storage facility are not contained in the *Pennsylvania Technical Guide*, the Commission or delegated conservation district will approve the design, operation and maintenance for the facility based on best available technology. However, the regulations do not define what is best available technology nor specify a timeframe within which the Commission will make a decision on the facility. The regulations need to be amended to define best available technology and adopt a 30 to 45 day maximum time limit to make a decision. Also, technical training will need to be provided to those involved in this approval process. Assistance from the NRCS may be needed to assist in making these decisions.

Response: The Commission has, in cooperation with the Advisory Board, reevaluated this provision of the proposed regulations and has deleted the provision allowing the approval of a facility that falls outside of the standards provided in the *Pennsylvania Technical Guide*. The Commission understands that the technical agencies currently assisting with the review of these types of facilities are not authorized to approve facilities outside of the *Pennsylvania Technical Guide*. Therefore, the Commission would have no technical support to rely on to approve these facilities. If a facility was proposed that falls outside of the standards in the *Pennsylvania Technical Guide*, the technical agencies which maintain the *Pennsylvania Technical Guide* will evaluate that design. After researching the specifications provided to the technical agencies, they will, if the design is sound, include the design into the *Pennsylvania Technical Guide*.

Comment: To be consistent with the wellhead protection program, the manure storage setback for public wells should be revised to read "facilities may not be constructed within 100 feet of a public water source unless Federal or State laws or regulations specify a greater isolation distance."

Response: The Commission agrees with this comment. To assure that these regulations are not in conflict with the Department's wellhead protection program, the suggested revision has been made to the regulations. The Commission has also provided language in the regulations to state that waivers will not be granted for the manure storage setbacks from public wells to assure program consistency.

Comment: For years the *Pennsylvania Technical Guide* has provided a base for the considerations of sound environmentally sensitive designs of storage facilities. The additional design criteria in subsection (a)(3) should be eliminated. The waiver places considerable liability upon the delegated districts. The rationale for the necessity of setbacks is currently incorporated and professionally evaluated utilizing the *Pennsylvania Technical Guide*, thus making the setback standards unnecessary.

Response: The Commission has worked with the Advisory Board to reevaluate the manure storage setbacks requirement at length in light of this comment. Section 4 of the act requires the Commission to develop standards for the construction, location, storage capacity and opera-

tion of manure storage facilities. The *Pennsylvania Technical Guide* does provide excellent base standards and specifications for location, design, construction, and the like, for facilities. However, the location standards in the *Pennsylvania Technical Guide* are very general in nature and are not specific enough to provide consistent guidance to the regulated community or to those responsible for the implementation of the act and regulations. The specific setbacks outlined in the regulations will allow for consistent implementation of the provisions of the act and regulations, and assure that proper distance around storages is maintained in order to allow for the correction of problem situations that may occur with the facility. Also, since these regulations are used as the base for local nutrient management ordinances throughout this Commonwealth, specific criteria were needed to assure consistent understanding of the requirements for manure storage facilities.

Comment: The act should provide greater flexibility to existing operations and hold new operations to higher standards, particularly with design and siting.

Response: The Commission agrees. The Commission has provided for this concept by allowing waivers from the manure storage setback requirements for existing operations, but not allowing for waivers for new operations. An additional step the Commission has taken in the final regulations is to provide for a greater setback requirement from property lines for new operations than that required for existing operations.

Comment: Section 83.311(d) refers to a "site specific contingency plan" and notification of "known downstream users." There needs to be clarification of what is meant by both of these terms in order that a farm operator will know what is expected, and it is not an arbitrary interpretation by field personnel in the event of a leak or spill.

Response: The *Pennsylvania Technical Guide* is the reference guide for understanding the scope of the contingency plan. The guide describes a contingency plan, which is part of an overall operation and maintenance plan, as a plan that outlines procedures used to address a leak or spill from a manure storage facility built under the act, and who would be called in those instances where the leak or spill will cause pollution to surface or groundwater. The notification language in this final regulation has been revised to incorporate the notification requirement in § 101.2(a) by reference.

Comment: Section 83.311(d) provides that in the case of a leak or spill from a manure storage facility, the operator is responsible for implementation of the "site specific contingency plan developed for the facility." A question arises whether the site specific contingency plan is a component of the site specific design in subsection (c), or whether this is a requirement in the *Pennsylvania Technical Guide*. It is recommended that the Commission provide the authority for the requirement of a site specific plan and how it will be reviewed and approved. Also, what constitutes a "health hazard" needs to be defined.

Response: The regulations call for storages to be operated and maintained in accordance with the standards in the *Pennsylvania Technical Guide*. As a part of the *Pennsylvania Technical Guide*, the facility is to have an operation and maintenance plan which includes a contingency plan component. This contingency plan component will outline procedures to be followed in the case of a manure storage leak or spill. The contingency plan is a very important element of a manure storage system. This

contingency plan will provide the operator with the needed information for addressing an emergency situation when immediate action is needed. A contingency plan is not required to be reviewed or approved as a provision of these regulations. The operation and maintenance plan, including the contingency plan component, is provided to and reviewed with the operator when the storage is ready to be used.

Comment: Are the manure storage standards in these regulations a duplication of existing regulations and not needed? The publication "Manure Management For Environmental Protection" document MMI October, 1986 states ". . . its supplements provide guidelines that comply with DER regulations concerning animal manures." Reading this, one would believe that there are existing regulations.

Response: Section 4 of the act specifically requires the Commission to develop standards for manure storage facilities. The existing guidelines provided in the *Pennsylvania Technical Guide* and the *Manure Management Manual* are very general in nature and not easily implemented in a consistent manner. The Commission has worked with the Advisory Board and numerous agencies and organizations to come to a consensus on effective manure storage standards that are able to be consistently implemented throughout this Commonwealth. The firm numbers established in these regulations will provide specific direction to the regulated community, those assisting with the implementation of the act, and to those developing local ordinances related to manure storages.

Comment: Currently many facilities are sitting full with manure or stormwater, or both, on farms to be sold. These are disasters waiting to happen, and prevention through closure regulation is preferred to clean up efforts and possible fines.

Response: The Commission agrees with this comment and has added a provision in the final regulations for the removal from service of facilities built under the act. The facilities are required to be removed from service in accordance with *Pennsylvania Technical Guide* standards.

Comment: It appears there are various regulations and guidelines that may be duplicative or inconsistent governing the location, design and operation of manure storage facilities. The Commission, in conjunction with the Department, needs to provide one set of clear standards and rules that will be required for all manure storage facilities in this rulemaking.

Response: Section 4 of the act specifically requires the Commission to develop standards for manure storage facilities. The Commission has attempted to bring together all the affected and involved parties to develop the one set of rules for manure storage standards contained in these regulations. The Commission has attempted to standardize these requirements to the greatest degree possible and believes that these standards are not in conflict with the requirements of other programs. Rather, the criteria listed in these regulations provide the needed detail to consistently implement the act. The Commission understands that these regulations will apply to those operations planning under the act, and more specifically related to manure storage criteria, only those operations constructing or expanding manure storage facilities required under the act. However, local municipalities may adopt standards which are consistent with and no more stringent than those provided in these regulations.

Plan review and approval

Comment: Under § 83.321, voluntary plans are given 45 days to be reviewed, and CAO plans are given 90 days to be reviewed. This creates a dual tracking system which may be burdensome and unnecessary. It also places voluntary plans ahead of plans required on CAOs in the review priority.

Response: The Commission agrees with the comment and has revised the final regulations to provide a 90-day review period for both CAOs and volunteers. The 45-day deemed approval for volunteers has been eliminated.

Comment: Section 83.321(e), which states that plans may be resubmitted if no action is taken in 90 days, is unclear. Is it the responsibility of the operator to submit a second copy of the original plan after the initial 90-day time period? After the initial 90-day period an operator is authorized to implement their plan, what happens if they initiate a plan which is subsequently not approved? Also, what is the legal difference of plans which are "authorized to implement," "deemed approved" and "approved."

Response: This section of the regulation tracks the language of section 6(e) of the act (3 P. S. § 1706(e)). The Commission believes this provision of the act allows operators to implement a plan prior to approval if no action is taken in 90 days. This will assure minimal disruption of the farmer's operation. The operator implementing a plan that was not acted on within the first 90 days does not have an approved plan. The plan would need to be resubmitted by the operator to get that approval. However, the operator may implement the plan to avoid disruption of time sensitive farming operations. It would be the recommendation of the Commission to not implement major capital improvements listed in the plan until the plan is approved or deemed approved. The Commission believes that a formally approved plan and a deemed approved plan are equally authorized to be implemented.

Comment: Some consideration should be given regarding the status of an approved and implemented Chesapeake Bay Plan. If a CAO has a plan, can it be revised and resubmitted for approval as an Act 6 plan? If this is the case, considering these operations have already voluntarily undertaken many of the steps mandated by the regulations, consideration should be given to a revision which would allow these plans to "grandfather," at least for their initial approval.

Response: The Commission believes strongly that consistency within the technical requirements of nutrient management plans approved under the act is very important, especially considering the limited liability protection afforded under the act. Existing Chesapeake Bay plans may only need very minor revisions to assure that these plans meet the same technical requirements as outlined in these regulations. Existing Chesapeake Bay plans will not need to be revised to meet these requirements if these operators do not want to participate in this program and if they are not CAOs. Only those new Chesapeake Bay Program participants, entering into agreements after the effective date of the regulations, will need to assure that they meet the requirements of these regulations.

Comment: Section 83.321(b) states the Commission or delegated conservation district shall approve, modify or disapprove the plan or plan amendments within 90 days of receipt. The clock should not start until a plan is determined to be administratively complete, therefore, it is recommended that the phrase "after it has been determined to be administratively complete," be added to the regulations.

Response: The Commission agrees with this comment and has revised the regulations to provide for a 10-day time period for the reviewing agency to inform an operator that the plan submission is incomplete. Notification will be provided to the operator in those cases when an initial plan submission is incomplete and the 90-day review period will start again when the completed plan is received by the reviewing agency.

Comment: NMPs previously written by districts or consultants should be grandfathered if it is determined by the district that the plan meets all the requirements of the regulations.

Response: Plans have been developed for a variety of different reasons in the past, and plan content has varied based on the intended purpose of the plan. With this program the Commission, with the help of the Advisory Board, has outlined what it believes are the critical components of a complete nutrient management plan. All old plans that wish to be recognized under this act will need to be certified by a nutrient management specialist that they meet the criteria for a plan as outlined in these regulations. Credit will be given for those portions of these plans that comply with the act and these regulations.

Plan implementation

Comment: Under § 83.322(a), the CAO is given 3 years to implement the plan and an additional 2 years if (a)(2)...“a sum of \$2 million or more has not been appropriated for the grants and loans.” In the event that little or no funding is available, the extension of time is little consolation to the farmers that may not be able to afford such expenses. The implementation deadline should state “until adequate funding is provided.”

Response: The conditions established for the extension of the time period for plan implementation are specifically set forth in section 6 of the act.

General program comments

Comment: What incentives are being offered to encourage volunteer participation? How are goals of improved efficiency and water quality to be met when key tools like flexibility and individual cost share incentives are taken away?

Response: The act provides for financial assistance and limited liability protection for participating operators. Also, the requirements for volunteer participation are less than those imposed on CAOs. The fact that the development of a plan on a volunteer operation can, in most instances, improve farm efficiency and profitability is an incentive in itself. Lastly, the Commission has attempted to develop a program that provides for maximum flexibility for the farmer, as well as provide financial assistance, as resources allow, to support participation in the program.

Comment: In regards to Executive Order 1996-1, Regulatory Review and Promulgation, the proposed regulations are in direct conflict with item 1(b) of the order. Item 1(b) states that “costs of regulations shall not outweigh their benefits.”

There is no evidence to suggest that this will be the case and it is doubtful that the cost of compliance with the enforcement of these regulations to both the Commonwealth and the private sector will more than likely far outweigh any definable, quantifiable benefit.

Response: The act requires the Commission to develop regulations to implement the provisions of the act. The

program is being developed to provide resources to the regulated community, as well as those volunteering to comply, to minimize the financial burden on the existing farm community. The program has been developed in such a way as to provide for maximum flexibility in the selection of BMPs to solve identified problem areas on the operation. For most problems, there may be solutions that can be selected that can be implemented for little or no cost to the operator or cost share agency. Water quality improvement efforts such as those required under this program should relieve State and local governments and private landowners from incurring costs associated with nitrogen pollution in drinking water.

Comment: In regards to Executive Order 1996-1, Regulatory Review and Promulgation, the proposed regulations are in direct conflict with item 1(g) of the order. Item 1(g) states that “where viable nonregulatory alternatives exist, they shall be preferred over regulations.”

There exist viable, nonregulatory alternatives currently available which are yielding very positive results. Some examples are: the response of private enterprise to situations where there is excess manure in creating services to move substantial quantities between Pennsylvania farmers and in many cases out of State; the fact that a high percentage of farmers, especially those that will be determined to be CAOs, have already implemented nutrient management plans; and the abundance of articles in the farm press about successful farm conservation practices.

Response: The act requires the Commission to develop regulations to implement the provisions of the act. The act requires a regulatory program to address CAOs, which are those operations with the highest probability of having difficulty in finding ways to distribute their manure nutrients. The CAOs, which represent about 5–10% of the total farms in this Commonwealth, are the only portion of the farm community that must comply with these regulations. The remainder of the farm community can volunteer to comply in order to get financial assistance or to get the limited liability protection provided for in the act. Throughout the development of this program, the Commission has attempted to maximize the use of the private sector in implementing this program and has attempted to maintain maximum flexibility for producers.

Comment: In regards to Executive Order 1996-1, Regulatory Review and Promulgation, the proposed regulations are in direct conflict with item 1(i) of the order. Item 1(i) requires that “regulations shall not hamper Pennsylvania’s ability to compete effectively with other states.” No other state has regulations as potentially costly to producers as these. They will put Pennsylvania producers at a severe competitive disadvantage. The proposed regulations hamper the ability for farmers to compete within this Commonwealth.

Response: The act requires the Commission to develop regulations to implement the provisions of the act. Over 25% of the states in the country have already enacted similar programs to address agricultural nutrient pollution. Some state programs have more stringent requirements. Vermont’s program, for example, prohibits the winter spreading of manure. The provisions of these regulations have been developed through the Advisory Board to develop a program that will be acceptable to this Commonwealth’s farm community and other sectors of society. The Commonwealth’s program has been set up to provide compliance assistance, both technically and financially, to those complying with the regulations to mini-

mize any impact on the farm community. The provisions of the act and these regulations will provide for a more sustainable agriculture in this Commonwealth, thus providing for a more competitive industry now and in the future. The requirements of these regulations will assure that the farm community can prosper agronomically and economically, while maintaining good neighbor relations in an ever expanding suburban society.

G. *Benefits, Costs and Compliance*

Executive Order 1996-1 requires a cost/benefit analysis of the final regulations.

Benefits

The intended result of the regulations is to establish nutrient management planning requirements and criteria for the application of nutrient management measures on concentrated agricultural operations in order to prevent the pollution of surface water and groundwater and maximize the use of animal manure resources. The act requires the Commission, in consultation with the Department of Agriculture, the Department and the Advisory Board, to promulgate regulations for nutrient management plans and other requirements to implement the act. Operators of CAOs will be the main beneficiaries of these regulations. Manure has important nutrient value. Nutrient management planning will lead to more efficient use of the manure resource. Improvement of management can result in savings of time, fuel and hours of equipment use for farmers. Regulations will also result in more even distribution of manure across farmland. This will improve the natural resource base of agriculture for the future as well as increased productivity in the present.

Many of the benefits are difficult to quantify. Nutrient management is intended to maximize the potential fertilizer value of manure for crop production. Statewide, these potential values are significant. The 25 million tons of manure produced in this Commonwealth each year contain an estimated 148,000 tons of nitrogen valued at \$460 per ton. It also contains 77,000 tons of phosphorus, worth \$440 per ton. The total value of the nitrogen and phosphorus in the manure is \$133.2 million.

In contrast, the nitrogen content of all the chemical fertilizer sold in this Commonwealth in 1989 was about 74,000 tons and the amount of phosphorus sold in chemical fertilizer was 55,000 tons. The greatest amount of fertilizer is sold in the southeast and southcentral portions of this Commonwealth, which are the regions producing the greatest amounts of manure.

On a typical dairy farm in this Commonwealth of 106 acres and 65 dairy cows with an existing manure storage facility, Penn State researchers have shown that the benefit of accounting for the value of the manure applied on farm as well as the nitrogen produced by legumes could increase profits by as much as \$1,700 per year.

Citizens of this Commonwealth in general will also benefit. Implementation of these regulations will help contribute to the cleanup of the 694 miles of streams in this Commonwealth known to be degraded by agriculture and will reduce further pollution of surface and groundwaters. Downstream uses of water will be protected for recreational, industrial, municipal and agricultural use. Tourism is this Commonwealth's second largest industry, and many elements of tourism are dependent upon surface water quality. The cost of purification of surface and groundwater by the municipality should be reduced. Rural citizens will experience health benefits as

a result of reduction of nitrates in the groundwater. Livestock will also experience health benefits from drinking unpolluted water.

Compliance Costs

In the private sector today, the costs for developing a plan vary widely, ranging from \$50-\$1,000 or more. The costs depend mainly on the nature of the operation and how much existing information is available. A survey of the 10 crop management associations in this Commonwealth showed an average cost of about \$5.50 per acre for the following services: collect and prepare soil samples; collect manure samples; collect and analyze field specific nutrient data; calculate farm manure production; and write the plan by calculating field specific nutrient application rates and overall farm nutrient balance. Using this cost, a nutrient application plan for a 150-acre farm with 30 fields would cost \$825 (these results are based on 5-acre fields; farms with larger fields may have lower costs). Other sources cited costs from \$150-\$250 for a midsize farm if some sample results and maps are already available or more than \$1,000 if considerable work needs to be done by the private consultant. For CAOs who export all of their manure, the costs of plan development would be minimal.

Consultant costs would also be subject to market forces driven by demand for and availability of certified specialists in different geographical regions. Farm operators can avoid consultant costs by becoming certified to write their own plans. Therefore, Statewide estimates of the total costs are not practical.

The cost of a manure storage structure averages \$38,000 dollars per unit. The cost of in-field nutrient runoff control practices such as diversions and vegetative filter strips averages \$4,750 per operation. These costs are based on information compiled from the Chesapeake Bay Nonpoint Source Pollution Abatement Program. These practices will not necessarily be required on all farms participating in the program.

The costs to local governments have, until now, been viewed as externalities of the costs of production of livestock products. These regulations require certain livestock producers to incorporate the costs of nutrient management into their operation. This will help prevent State and local government and private landowners from incurring the costs associated with nitrogen pollution in drinking water. In Lancaster County alone, about 100 (nearly 20%) of the public water suppliers apply treatment to remove excess nitrates from drinking water. Costs for communities to install nitrate removal facilities have ranged from \$90,000 to nearly \$1.3 million, not including costs to properly dispose of wastewater from the treatment process.

There will be increased program costs for the Commission to implement the program. In addition to providing support to county conservation districts implementing the program, the Commission has entered into an agreement with the Penn State Cooperative Extension to have them provide educational services, workshops, teleconferences, training workshops and computer software development that will be needed by the program. This educational program will cost approximately \$125,000 per year over a period of 5 years.

The Commission intends to seek funding for nutrient management plan development and loans and grants for financial assistance for the implementation of nutrient management plans on existing operations. In the first year following the adoption of the regulations, the Com-

mission will request a minimum of \$2 million from the General Assembly. Additional funding could come from various sources, for example, general fund appropriations, loan funds from the State Revolving Fund and the \$25 million authorized for loans for nutrient management under Act 130 of 1994, Agriculture-Linked Investment Program.

County conservation districts will have to hire some new nutrient management specialists. These costs to the districts would be reimbursed by the Nutrient Management Fund.

Compliance Plan

The act requires the Commission, in cooperation with the Department of Agriculture, the Advisory Board, the Penn State Cooperative Extension and the conservation districts, to provide educational and technical assistance to the farming community. The Department of Agriculture has assumed the lead in assisting the Commission in developing this program. Contracts have been signed with the Cooperative Extension of the Pennsylvania State University for training and workshops to provide the farming community and nutrient management specialists with the information and skills necessary to participate in the program.

Paperwork Requirements

Fertilization rates are based on plant nutrient needs. These needs are determined based on the specific crop planted and soil characteristics. A soil test will be part of the data required to write a plan and should be kept on record at the operation. Agricultural operations that develop plans under the act will be required to maintain records of how their manure is used. For manure transfers off a CAO, this will be done by using a form entitled "A Manure Transfer Sheet," which will be provided by the Commission. Some CAOs will be required to report their manure transfers by submitting a copy of the Manure Transfer Sheet, or the optional Summary of Manure Transfers form, to the Commission or local conservation district.

The act offers limited liability protection from manure pollution events. This is one of the main incentives for compliance, especially for voluntary involvement with the program. Good recordkeeping will be important to farmers who want to take advantage of this provision. The educational component of the nutrient management program will include instruction on how to keep these records, both to meet the letter of the law and to maximize efficient use of the manure resource.

The regulations have been written so that paperwork will be reduced as much as possible. Aside from submitting a copy of the nutrient management plan to enroll in the program, a majority of the agriculture operators participating are not expected to have to file any additional paperwork. Efforts have been made to minimize the need for plan amendments, especially for volunteers. Those agricultural operations that do have to submit records of manure exports can use the annual summary of manure transfers, which will reduce the amount of paperwork submitted.

Required forms will be supplied by the Commission. However, recognizing that many plans will be developed using a computer, computer generated forms will be accepted.

H. Sunset Review

These regulations will be reviewed in accordance with the sunset review schedule published by the Commission to determine whether these regulations effectively fulfill the goals for which they were intended.

I. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on December 18, 1995, the Commission submitted a copy of the notice of proposed rulemaking, published at 25 Pa. B. 6161 (December 30, 1995) to the Independent Regulatory Review Commission (IRRC) and the Chairpersons of the Senate and House Agriculture and Rural Affairs Committees for review and comment. In compliance with section 5(b.1) of the Regulatory Review Act, the Commission also provided IRRC and the Committees with copies of the comments received, as well as other documentation.

In preparing these final-form regulations, the Commission has considered the comments received from IRRC, the Committees and the public.

These final-form regulations were deemed approved by the House Agriculture and Rural Affairs Committee and the Senate Agriculture and Rural Affairs Committee on April 21, 1997. IRRC met on May 1, 1997, and approved the regulations in accordance with section 5(c) of the Regulatory Review Act.

J. Findings of the Commission

The Commission finds that:

- (1) Public notice of proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P. L. 769, No. 240) (45 P. S. §§ 1201 and 1202) and regulations promulgated thereunder at 1 Pa. Code §§ 7.1 and 7.2.
- (2) A public comment period was provided as required by law, and all comments were considered.
- (3) These regulations do not enlarge the purpose of the proposal published at 25 Pa. B. 6161.
- (4) These regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this Preamble.

K. Order of the Commission

The Commission, acting under the authorizing statutes, orders that:

- (a) The regulations of the Department, 25 Pa. Code Chapter 83, are amended by adding §§ 83.201—83.207, 83.211—83.216, 83.221—83.233, 83.241, 83.251, 83.261, 83.262, 83.271, 83.272, 83.281, 83.282, 83.291—83.294, 83.301, 83.311, 83.321, 83.331, 83.341—83.344, 83.351, 83.361, 83.362, 83.371—83.373, 83.381, 83.391, 83.392, 83.401—83.404, 83.411, 83.421, 83.431, 83.441, 83.451—83.453, 83.461, 83.471, 83.472, 83.481—83.483 and 83.491 to read as set forth in Annex A.
- (b) The Chairperson of the Commission shall submit this order and Annex A to the Office of General Counsel and the Office of Attorney General for approval and review as to legality and form, as required by law.
- (c) The Chairperson shall submit this order and Annex A to IRRC and the Senate and House Agriculture and Rural Affairs Committees as required by the Regulatory Review Act.

(d) The Chairperson of the Commission shall certify this order and Annex A and deposit them with the Legislative Reference Bureau, as required by law.

(e) This order shall take effect October 1, 1997.

JAMES M. SEIF,
Chairperson

(Editor's Note: For the text of the order of the Independent Regulatory Review Commission relating to this document, see 27 Pa.B. 2490 (May 17, 1997).)

Fiscal Note: 7-291. (1) Nutrient Management Fund; (2) Implementing Year 1996-97 is \$796,900; (3) 1st Succeeding Year 1997-98 is \$1,022,000; 2nd Succeeding Year 1998-99 is \$1,270,000; 3rd Succeeding Year 1999-00 is \$1,038,000; 4th Succeeding Year 2000-01 is \$1,095,000; 5th Succeeding Year 2001-02 is \$1,144,000; (4) Fiscal Year 1995-96 \$94,415; Fiscal Year 1994-95 \$Not Applicable; New Program; Fiscal Year 1993-94 \$Not Applicable; New Program; (7) State Conservation Commission; (8) recommends adoption. The increased costs to the Nutrient Management Fund have been included in the 1997-1998 Governor's Executive Budget Proposal and have also been carried forward for planning purposes. Additional funds for grants and loans may be appropriated by the General Assembly through the budget process.

Annex A

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

Subpart C. PROTECTION OF NATURAL RESOURCES

ARTICLE I. LAND RESOURCES

CHAPTER 83. STATE CONSERVATION COMMISSION

Subchapter D. NUTRIENT MANAGEMENT

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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:

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.

AEU per acre—An animal equivalent unit per acre of cropland or acre of land suitable for application of animal manure.

Act—The Nutrient Management Act (3 P. S. §§ 1701—1718).

Agent—An entity delegated Commission powers and duties under the authority of section 4(3) of the Conservation District Law (3 P. S. § 852(3)), including a partnership, association, corporation, municipality, municipal authority, political subdivision of this Commonwealth and an agency, department, commission or authority of the Commonwealth.

Agricultural operations—The management and use of farming resources for the production of crops, livestock or poultry.

Animal concentration areas—Barnyards, feedlots, loafing areas, exercise lots, or other similar animal confinement areas that will not maintain a growing crop, or where deposited manure nutrients are in excess of crop needs. The term excludes areas managed as pastures or other cropland. The term excludes pasture access ways, if they do not cause direct flow of nutrients to surface water or groundwater.

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 account 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 where the animal density exceeds two AEUs per acre on an annualized basis.

Commission—The State Conservation Commission established by the Conservation District Law (3 P. S. §§ 849—864).

Concentrated water flow areas—Those 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 district—A county conservation district established under the Conservation District Law.

Cooperative Extension—The Penn State Cooperative Extension.

Critical runoff problem areas—Those 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—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.

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 by the operator, and lands under agreement or under the management control of the operator that are an integral part of the production of crops, livestock or poultry and the associated management of nutrients generated by the animal production facility.

Fund—The Nutrient Management Fund established under section 10 of the act (3 P. S. § 1710).

Manure Management Manual—The guidance manual entitled “Manure Management Manual for Environmental Protection” and its supplements developed by an inter-agency workgroup and published by the Department. 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 (relating to pollution control and prevention from agricultural operations).

Manure storage facility—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. 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. The term does not include the animal confinement areas of poultry houses, horse stalls, freestall barns or bedded pack animal housing systems.

Mechanical incorporation of manure—The combination of manure with the soil by means of farm tillage or manure injection equipment, including disks and twisted

shank chisel plows, in order to minimize the potential of overland runoff of the manure.

NRCS—Natural Resources Conservation Service—The Natural Resources Conservation Service of the United States Department of Agriculture, formerly known as the Soil Conservation Service.

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 or combinations thereof.

Nutrient management 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 that uncollected manure nutrients are limited to the amounts utilized by the crop.

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

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 in a defined channel or bed, and is capable, in the absence of pollution or other manmade stream disturbances, of supporting bottom dwelling aquatic animals.

Permanent manure stacking areas—Designated, improved storage areas that are used for the long term or recurring storage of solid manure.

Plan—nutrient management plan—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 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 §§ 83.271, 83.272 and 83.391—83.441 for nonCAOs planning under the act.

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.

Temporary manure stacking areas—Unimproved areas, preferably located in crop fields, that are planned to be used in unforeseen circumstances for the storage of solid manure to be used during the next growing season, or for other acceptable uses.

§ 83.202. Scope.

This subchapter specifies minimum criteria and requirements for:

(1) Nutrient management plans required under the act for CAOs.

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

(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 and operation of animal manure storage facilities constructed and existing facilities expanded or repaired as part of a plan developed under the act.

(6) Manure handling in emergency situations when there is an outbreak of a contagious disease that poses a threat to animal or human health.

(7) The awarding of financial assistance under the act for the implementation of plans for existing agricultural operations.

(8) The awarding of incentives for the development of plans under the Plan Development Incentives Program in §§ 83.211—83.216.

§ 83.203. Purpose.

The purposes of this subchapter are to:

(1) Assure the proper utilization and management of nutrients on CAOs.

(2) Encourage the proper utilization and management of nutrients on other agricultural operations.

(3) Protect the quality of surface water and groundwater.

§ 83.204. Applicability of requirements.

(a) CAOs required to plan under the act shall refer to 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 Nonpoint Source Pollution Abatement Program, shall refer to the following sections for applicable requirements: §§ 83.261, 83.271, 83.272 and 83.391—83.491.

§ 83.205. Preemption of local ordinances.

(a) The act and this subchapter are of Statewide concern and occupy the whole field of regulation regarding nutrient management to the exclusion of all local regulations.

(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 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 and no more stringent than the requirements of the act and this subchapter.

(d) No penalty will be assessed under any valid local ordinance or regulation for any violation for which a penalty has been assessed under the act or this subchapter.

§ 83.206. Limitation of liability.

If an operator is fully and properly implementing a plan approved by a delegated county conservation district or the Commission and maintained under the act and this subchapter, the implementation shall be given appropriate consideration as a mitigating factor in any civil action for penalties or damages alleged to have been caused by the management or utilization of nutrients under the implementation.

§ 83.207. Compliance assistance and enforcement.

(a) The Department of Agriculture will assist the Commission in developing programs to assist those engaged in production agriculture to comply with the act and this subchapter.

(b) The Department of Agriculture will act as an ombudsman to help resolve issues related to county conservation district implementation of the act and this subchapter for those conservation districts delegated nutrient management program responsibilities under § 83.241 (relating to delegation to local agencies).

(c) The Commission will be responsible for taking enforcement actions under the act and this subchapter. In the exercise of its enforcement authority, the Commission will be assisted by the staff of the Department for actions resulting in violations of The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and will be assisted by the Department of Agriculture for all other violations.

PLAN DEVELOPMENT INCENTIVES PROGRAM

§ 83.211. Applicant eligibility.

(a) In addition to seeking financial assistance for the implementation of a plan under §§ 83.221—83.233 (relating to financial assistance), the operator of a CAO or other agricultural operation planning under the act, may apply for funding under the Plan Development Incentives Program for the development of a plan.

(b) Only agricultural operations that were producing livestock or poultry as of October 1, 1997, 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.

§ 83.212. Application procedure.

(a) An application for funding from the Plan Development Incentives Program shall be made on forms developed by the Commission and shall be addressed to the Commission or delegated conservation district.

(b) An application received by the Commission or delegated conservation district will be reviewed for completeness, eligibility and the appropriate level of funding.

(c) If the application is determined to be incomplete, the Commission, or delegated conservation district, will provide the applicant with a written explanation of the reason for the determination, and request the additional information needed to complete the application process.

(d) The Commission or delegated conservation district will approve or disapprove each application submitted. Within 45 days of receipt of the required information, applicants will be notified in writing of actions taken on their applications and their rights to appeal the actions.

(e) If the approval of applications for funding from the Plan Development Incentives Program is delegated to a county conservation district under § 83.241 (relating to delegation to local agencies), actions of conservation districts shall be deemed actions of the Commission unless an applicant aggrieved by an action of a conservation district seeks Commission review of the action within 30 days from actual or constructive notice of the action.

(f) The applicant may appeal a decision of the Commission to the EHB as provided for in section 15 of the act (3 P. S. § 1715).

§ 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 distribution of funding shall be provided to the extent funds are available based on the following prioritization:

- (1) CAOs coming into existence after October 1, 1997, due to loss of rented acres.
- (2) Non-CAOs volunteering to comply with the act.
- (3) CAOs in existence before October 1, 1997.
- (4) Other CAOs coming into existence after October 1, 1997.

§ 83.214. Eligible costs.

(a) Eligible costs considered by the Commission are those fees incurred for the development of the plan.

(b) Only those soil and manure test costs included in the service fee charged for plan development are eligible for reimbursement.

§ 83.215. Funding limitations.

(a) The Commission will limit individual awards in the amounts it deems appropriate for the particular classification of operation.

(b) Funding under this program will be limited to a one-time reimbursement payment for plan development costs incurred after the operator's application has been approved.

(c) Funding under this program will not be available for planning efforts initiated prior to approval of the request for participation in the program.

§ 83.216. Implementation and reporting.

(a) The Commission will develop implementation and reporting documents defining the terms and conditions under which funding under this program will be provided and other documents determined to be necessary by the Commission.

(b) Only plans meeting the requirements of this subchapter will be eligible for reimbursement under this program.

(c) The applicant shall maintain financial records for 3 years to substantiate reimbursement expenditures covered by this program.

FINANCIAL ASSISTANCE**§ 83.221. Applicant eligibility.**

(a) An owner or operator of an 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) 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.

§ 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, 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.

§ 83.223. Financial assistance eligibility criteria.

(a) The Commission will consider the following criteria in reviewing applications for financial assistance:

(1) Whether the project will improve the health, safety or environment of the people of this Commonwealth and otherwise satisfy the purposes of the act and this subchapter.

(2) The long-term financial or operational viability, or both, of the agricultural operation.

(3) The cost effectiveness of the proposed BMPs in comparison with other alternatives.

(4) The applicant's ability to operate and maintain the BMPs in a proper manner.

(b) Only those BMPs listed in an approved plan or plan amendment are eligible to receive funding under the plan implementation category of the Financial Assistance Program.

§ 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.

(2) CAOs coming into existence after October 1, 1997, due to loss of rented acres.

(3) Non-CAOs with critical BMPs.

(4) Other agricultural operations.

§ 83.225. Application procedure.

(a) An application for financial assistance shall be made on forms approved by the Commission and shall be addressed to the Commission or a delegated agent.

(b) An application received by the Commission or delegated agent will be reviewed for completeness and eligibility. An application shall include a summary of the

approved plan which identifies the proposed BMPs for which financial assistance is being requested.

(c) If the application is determined to be incomplete, the Commission or a delegated agent will provide the applicant with a written explanation of the reasons for the determination, and request the additional information needed to complete the application process.

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

(e) The applicant may appeal a decision of the Commission to the EHB as provided for in section 15 of the act (3 P. S. § 1715).

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

(a) Eligible project costs considered by the Commission shall be the costs necessary to implement the plan and may include the following:

(1) Project design and engineering including plans, specifications, cost estimates, certifications and surveys.

(2) Costs associated with obtaining the financial assistance and may include loan origination or loan application fees, or both, title fees and filing fees.

(3) Project construction, including labor, materials, machinery, equipment and site preparation associated with the project.

(4) Other costs the Commission has determined to be necessary.

(b) Funds encumbered or advanced for the project which are not used for eligible costs in the project shall be returned to the fund or account from which they originated for reallocation and use in the implementation of other plans.

§ 83.227. Loans.

(a) The Commission will issue loans and set applicable terms and conditions it deems appropriate. The Commission may consider factors it deems relevant, including the following:

(1) Current market interest rates.

(2) The financial ability of the applicant to repay.

(3) The necessity to maintain the fund in a financially sound manner.

(b) Loans may be based on the ability to repay from future revenue to be derived from the applicant's agricultural operation. Loans may be secured by a mortgage or the security interest, or both, or by any other fiscal manner which the Commission deems appropriate. The minimum rate of interest to be paid on any loan made is 1%.

(c) The term of loans may not exceed 10 years from the day the loan agreements are executed.

(d) The Commission may defer the initiation of the repayment of principal up to 12 months from the date the loan agreements are executed. The borrower may begin principal and interest payments sooner than required, if the borrower so desires.

§ 83.228. Loan guarantees.

The Commission may make loan guarantees if the Commission determines that it is an appropriate method to accomplish the purposes of the act or this subchapter.

§ 83.229. Grants.

(a) A grant will be considered when funds have been made available to the Commission and the Commission determines that the financial condition of the recipient is such that the repayment of a loan is unlikely and that the recipient will be financially distressed by the implementation of BMPs without a grant.

(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 eligible for grants under the Nutrient Management Financial Assistance Program up to the grant limit established by the Commission in grants from combined sources of the Chesapeake Bay Program and the Nutrient Management Financial Assistance Program.

(c) A grant will be made subject to the terms and conditions the Commission establishes.

§ 83.230. Grants and loans.

The Commission will, when it deems it appropriate and to the extent financial circumstances permit, mix grant funds with loan funds.

§ 83.231. Funding limitations.

(a) *Total funding limits.* Total assistance provided under loans, grants and loan guarantees for the implementation of a single plan may not exceed those funding limits established by the Commission.

(b) *Partial funding.* The Commission reserves the right to provide funding for only a portion of the total costs of the project or only a portion of the amount requested in a financial assistance application.

(c) *Least cost alternative.* Financial assistance provided may not exceed that amount necessary for the least-cost alternative for each BMP included.

(d) *Limitation.*

(1) No financial assistance will be made available that might jeopardize or compromise the fund.

(2) Financial assistance will not be available for refinancing.

(3) Financial assistance will not be available for BMPs if construction is initiated prior to submission of an application for financial assistance, unless a letter of no prejudice has been issued by the Commission as provided in subsection (e).

(e) *Letters of no prejudice.* Exceptions to the general prohibition against initiation of construction prior to consideration by the Commission may be made when plan implementation is required to proceed before an application for financial assistance can be submitted to the Commission. 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 benefitting a future application.

§ 83.232. Implementation and reporting.

(a) The Commission will develop financial assistance documents which will define the terms and conditions

under which the financial assistance is offered and specify other documents determined to be necessary by the Commission.

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

(c) Design and construction of BMPs shall conform to the standards found in the *Pennsylvania Technical Guide*. The applicant may not significantly deviate from the scope, design or time schedule for a project unless prior written approval is given by the Commission or delegated agent. The term "scope," as used in this subsection, means the extent of project activities determined by the Commission to be eligible for financial assistance.

(1) A request for significant changes in scope shall be submitted in writing to the Commission for approval. When changes in scope require a plan amendment under the criteria of § 83.371 or § 83.481 (relating to plan amendments), the applicant shall provide a copy of the approved plan amendment.

(2) Funding eligibility for a change in scope will be based on the criteria described in § 83.223 (relating to financial assistance eligibility criteria). Consent of the Commission to a change in scope will not be deemed to increase the amount of financial assistance provided without the express approval of the Commission. Funding for changes in the scope of an assistance project will be approved only in the following circumstances:

(i) The change in scope is a result of new or revised requirements, Federal legislation, or a Federal regulation thereunder, State legislation or State regulation thereunder, the act, this subchapter, The Clean Streams Law (35 P. S. §§ 691.1—691.1001) or regulations thereunder.

(ii) The change in scope is necessary to protect the structural or process integrity of the facilities.

(iii) Adverse conditions are identified during the construction of the facilities which could not have been foreseen by the design engineer prior to encountering the condition.

(iv) The change is necessary to relieve emergency conditions occurring during construction of the facilities.

(d) A request for a disbursement of financial assistance shall be on forms approved by the Commission, shall include a statement certifying the project was completed as planned, and shall be submitted on a schedule approved by the Commission.

(e) The applicant shall maintain project progress and financial records to substantiate expenditures, as well as plan implementation records as outlined in §§ 83.341—83.344 for CAOs or §§ 83.451—83.453 for volunteers.

(f) If the applicant fails to comply with this section, the Commission may withdraw the remaining funds allocated to the project, as well as take other action which it is legally entitled to take.

§ 83.233. Delegation of financial assistance.

(a) Under section 4(3) of the Conservation District Law (3 P. S. § 852(3)) and subject to this section, the Commission may by written agreement delegate to one or more agents the administration of the financial assistance provisions of this subchapter in §§ 83.221—83.232. The

Commission will retain final approval authority for all applications for financial assistance.

(b) To the extent delegated by the agreement, the delegations may include the authority to review and make recommendations to the Commission on applications for financial assistance under the act and this subchapter and to exercise other powers and duties otherwise vested in the Commission to administer the Financial Assistance Program. The Commission will retain final approval authority for all applications for financial assistance received by a delegated agent.

(c) A delegation agreement shall:

(1) Specify the powers and duties to be performed by the delegated agents.

(2) Provide for the commitment of sufficiently trained staff and resources to perform the process and duties to be delegated.

(3) Require the delegated agent to maintain records of activities under the delegation.

(4) Provide for the monitoring and supervision by the Commission of performance by the delegated agents of the functions delegated under the agreement.

(d) When the Commission delegates one or more of its powers and duties to an agent, the Commission will retain the concurrent power to administer the financial assistance provisions of this subchapter.

DELEGATION TO LOCAL AGENCIES

§ 83.241. Delegation to local agencies.

(a) Under section 4(8) of the act (3 P. S. § 1704(8)) and subject to this section, the Commission may by written agreement delegate to a conservation district one or more of its administrative or enforcement authorities under the act.

(b) The delegation of administrative or enforcement authority may be made to a conservation district when the district demonstrates it has or will have an adequate program and sufficient resources to accept and implement the delegation.

(c) To the extent delegated by the agreement, the delegations may include the authority to enforce the act and this subchapter and to exercise other powers and duties otherwise vested in the Commission to implement the act.

(d) A delegation agreement shall:

(1) Specify the powers and duties to be performed by the delegated district.

(2) Provide for the commitment of sufficient trained staff and resources to perform the powers and duties to be delegated.

(3) Require the delegated conservation district to maintain records of activities performed under the delegation.

(4) Provide for the monitoring and supervision by the Commission of performance by the delegated conservation district of the functions delegated under the agreement.

(e) When the Commission delegates one or more of its powers and duties to a delegated conservation district, the Commission will retain the concurrent power to administer and enforce the act and this subchapter.

COMPLIANCE PLANS

§ 83.251. Compliance plans.

An agricultural operation found to be in violation of The Clean Streams Law (35 P. S. §§ 691.1—691.1001) may be required to submit a plan that meets the requirements of the act and §§ 83.261—83.381 within 3 months or notification thereof and shall be implemented in accordance with the schedule as approved.

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.

(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.

(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.

(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.

(e) 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 that the plans are in accordance with the act and this subchapter.

§ 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 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. Nonstandard weights may be used in place of those in Table A, if there is sufficient documentation to support the use of the nonstandard weights. For those animal types not included in Table A, 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 the total weight reached in subparagraph (i) by the number of production days per year, then divide by 365 days.

(iii) Divide the number reached in subparagraph (ii) by 1,000 to equal the number of AEUs for each type of animal.

(iv) Total the number of AEUs for each type of animal to equal the total number of AEUs on the agricultural operation.

Table A

<i>Type of Animal</i>	<i>Standard Weight in Pounds During Production (Range)</i>
<i>Swine</i>	
Nursery Pig	30 (15—45)
Finishing Pig	145 (45—245)
Gestating Sow	400
Sow and Litter	470
Boar	450
<i>Beef</i>	
Calf 0—8 Mo.	300 (100—500)
Finishing 8—24 Mo.	850 (500—1,200)
Cow	1,150
<i>Veal</i>	
Calf 0—16 Wk.	250 (100—400)
<i>Poultry</i>	
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)
<i>Roaster</i>	
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)
<i>Pheasant</i>	
0—13 to 43 Wk.	1.53 (0.05—3)
<i>Chukar</i>	
0—13 to 43 Wk.	0.52 (0.04—1)
<i>Quail</i>	
0—13 to 43 Wk.	0.26 (0.02—0.5)
<i>Dairy</i>	
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
<i>Jersey</i>	
Cow	900
Heifer 1—2 Yr.	600 (400—800)
Calf 0—1 Yr.	225 (50—400)
Bull	1,000
<i>Sheep</i>	
Lamb 0—26 Wk.	50 (10—90)
Ewe	150
Ram	185
<i>Goat</i>	
Kid 0—10 Mo.	45 (5—85)
Doe	125

<i>Type of Animal</i>	<i>Standard Weight in Pounds During Production (Range)</i>
Buck	170
<i>Horse</i>	
Foal 0—6 Mo.	325 (125—625)
Yearling	750 (625—875)
Nondraft Breeds, Mature	1,000
Draft Breeds, Mature	1,700

(2) 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 the sole purpose of determining whether an agricultural operation is a CAO, is land in 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 agreements, crop records or form provided by the Commission.

(B) The land is or will be used for the application of manure generated by the agricultural operation.

(ii) The term "land suitable" does not include farmstead areas or forest land.

(b) *Example of AEU per acre calculation.* An operation has an average number of 10,000 medium broilers on a typical production day with an average weight during production of 2.3 pounds. During the year there are six flocks with a production period of 43 days per flock. This amounts to 258 production days per year. During the remaining down time, no manure is produced. The farmstead is 2 acres. There are 3 acres of woodlands and 7 acres of cropland. The following is the AEU per acre calculation for this operation:

Step 1. 10,000 med. broilers × 2.3 lb. avg. wt. = 23,000 lb. total weight

Step 2. 23,000 lb. total weight × 258 production days per year divided by 365 days = 16,257 lbs.

Step 3. 16,257 lbs. divided by 1,000 lbs. per AEU = 16.25 AEUs

Step 4. Total number of AEUs on the agricultural operation is 16.25

Step 5. 16.25 AEUs divided by 7 acres of land suitable = 2.3 AEUs per acre

CONTENT REQUIREMENTS FOR ALL PLANS

§ 83.271. Scope of plan.

Plans developed under the act shall comply with the act and this subchapter.

§ 83.272. Content of plans.

(a) Plans developed for CAOs shall, at a minimum, comply with §§ 83.261 and 83.271—83.331.

(b) A plan 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 shall, at a minimum, comply with §§ 83.261, 83.271, 83.272 and 83.391—38.441.

(c) A plan shall be organized to correspond to the appropriate sections described in subsections (a) and (b). A plan shall have a separate section for each of these sections. The operator shall be consulted during the preparation of all sections of 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, developed for the operation, unless otherwise justified in writing by the planner to the Commission or delegated conservation district.

PLAN SUMMARY INFORMATION FOR CAO PLANS

§ 83.281. Identification of agricultural operations and acreage.

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

- (1) The operator name, address and telephone number.
- (2) The signature of the operator, indicating the operator's concurrence with the practices outlined in the plan.
- (3) The counties where land included in the plan is located.
- (4) The watersheds of land included in the plan. The existence of any special protection waters, as identified in § 93.9 (relating to designated water uses and water quality criteria), shall also be noted.
- (5) The total acreage of the agricultural operation included in the plan.

(6) The total acreage of land on which nutrients shall be applied. The total acreage shall be separated into acres of owned land and acres of rented land.

(7) The number of AEUs per acre on the agricultural operation.

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

(b) The plan shall contain maps or aerial photographs of sufficient scale which clearly identify:

- (1) The location and boundaries of the agricultural operation.
- (2) Individual field boundaries under the plan.
- (3) Field number and acreage of each field.
- (4) The identification of all soil types and slopes on the agricultural operation. An NRCS soil survey map with the soil identification legend shall 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 § 83.294(5) (relating to nutrient application procedures).

§ 83.282. Summary of plan.

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

- (1) A chart listing:
 - (i) The total amount of manure generated on the operation annually.
 - (ii) The total amount of manure to be used on the operation annually.
 - (iii) The total amount of manure to be exported from the operation annually.
- (2) Nutrient application rates by field or crop group.
- (3) Procedures and provisions for the utilization or proper disposal of excess manure.

(b) 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 each type of nutrient source used on the operation, including: manure, sludges, compost, cover crops, commercial fertilizers and other nutrients that will be applied to the agricultural operation.

(b) The amount and nutrient content of manure to be applied on the agricultural operation shall be determined as follows:

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

(2) The amount of manure produced and when it is available for spreading on the agricultural operation shall be calculated based on the average number of AEUs 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.

(3) For the preparation of the plan and plan amendments, it is recommended that the nutrient content of the manure be determined by using accepted manure sampling and chemical analysis methods as outlined in the *Manure Management Manual*, or the *Pennsylvania Agronomy Guide*. When sampling and analysis is not done, the nutrient management specialist shall use 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. The nutrient content of the manure shall be recorded in the plan.

(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 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.

(d) The residual nitrogen from legume crops and applications of manure, as described in the *Pennsylvania Agronomy Guide*, shall be recorded in the plan and credited when determining nutrient application rates.

(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.

(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 be based on these records.

(1) 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 the Commission or delegated conservation district.

(2) For 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 for the use of the higher yields to the Commission or delegated conservation district.

(c) The plan shall include a determination of the amount of nutrients necessary for realistic expected crop yields.

(d) The *Pennsylvania Agronomy Guide* or *Manure Management Manual* may be used to assist in determining the amount of nutrients necessary for achieving realistic expected crop yields.

§ 83.293. Determination of nutrient application rates.

(a) Nitrogen shall be applied only in the amounts necessary to achieve realistic expected crop yields or at a rate not exceeding what the crop will utilize for an individual crop year.

(b) The planned manure application rate shall be recorded in the plan. The planned manure application rate may be any rate equal to or less than the balanced manure application rate based on nitrogen. 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.

(c) The plan shall include calculations indicating the difference between the recommended nitrogen necessary for realistic expected crop yields and nitrogen applied including, but not limited to, manure, sludge, starter fertilizer and other fertilizer. 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) 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) Intended target spreading periods for the application of manure shall be included in the plan.

(3) Application rates and procedures shall be consistent with the capabilities, including capacity and calibration range of available application equipment.

(4) Application rates for liquid manure irrigation shall be based on the lesser of either the nutrient plan application rates determined in accordance with § 83.293(a) and (b) (relating to determination of nutrient application rates), or the rates 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*.

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

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

(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 active public drinking water source, unless other State or Federal laws or regulations require a greater isolation distance.

(iv) Within concentrated water flow areas in which vegetation is maintained, such as ditches, waterways, gullies and swales, during times when soil is frozen, snow covered or saturated.

(v) Within concentrated water flow areas in which vegetation is not maintained, such as intermittent streams, gullies and ditches.

(vi) 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 surface water flow is toward the identified area, when soil is frozen, snow covered or saturated.

(vii) 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 surface water flow is toward the identified area and where the slope is greater than 8% as measured within the 200 feet, during times when soil is frozen, snow covered or saturated.

(6) If winter spreading of manure is anticipated, 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.

ALTERNATIVE USES FOR EXCESS MANURE FOR CAO PLANS

§ 83.301. Excess manure utilization plans for CAOs.

(a) When manure will be exported to known landowners or operators for agricultural land application, the plan shall list:

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

(2) The estimated number of acres available for spreading manure at each importing agricultural operation.

(3) The estimated amount of manure to be exported annually to known landowners or operators for agricultural land application.

(4) The estimated amount of manure that could be exported to each agricultural operation.

(5) The intended season for the manure transfer.

(b) When manure will be transported through a manure broker, the plan shall list:

(1) The broker's name.

(2) The estimated amount of manure the exporting agricultural operation will transfer through the broker annually.

(3) The intended season for the manure transfer.

(c) When manure will be transferred to a known importer for use other than agricultural land application, the plan shall include the following information:

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

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

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

(4) The intended season for the manure transfer.

(d) Where 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 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 manure is to be marketed from an existing agricultural operation using an open advertising system and the importers cannot be identified at planning time, the plan shall describe the proposed marketing scheme, including the estimated amount of manure expected to be marketed annually using an open advertising system.

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 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. Practices to be evaluated in this review include manure handling, collection, barnyard runoff control, 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 animal concentration areas.

(3) Manure storage facilities overflowing or maintained at levels above design full levels.

(4) Manure storage facilities that are sized for less than the projected manure accumulation based on the expected application periods used in the plan.

(5) Leaking or unstable manure storage facilities.

(b) As part of a plan certification, the nutrient management specialist shall assure that the review required under subsection (a) was undertaken in the preparation of the plan. The plan will contain those BMPs that are necessary to correct identified water contamination sources and protect surface water and groundwater. During the implementation of the approved plan, the BMPs shall meet the specifications contained in the *Pennsylvania Technical Guide*. 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. The BMP designs shall be kept on record by the operator as a supplement to the plan.

(c) The following BMPs may be used to protect water quality and to control water in farmstead, 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.

(2) Adequate collection of manure from animal concentration areas for utilization on cropland or for other acceptable uses.

(3) Diversion of contaminated runoff within animal concentration areas to a storage, lagoon, collection basin, vegetated filter area, or another suitable site or facility.

(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 concentrated water flow areas and areas where manure application is restricted or prohibited based on § 83.294(5) (relating to nutrient application procedures).

(6) Other appropriate BMPs acceptable to the Commission.

(d) When temporary manure stacking areas may be necessary for the implementation of the plan, the plan shall identify those areas available for the storage of manure due to unforeseen circumstances such as adverse weather conditions. Manure shall be removed from temporary stacking areas for utilization on cropland or other acceptable uses as soon as feasible.

(e) Information contained in other sections of the plan may be used by the specialist when addressing this section.

(f) The siting, design and installation of manure storage facilities shall meet the requirements in § 83.351 (relating to minimum standards for the design, construc-

tion, location, operation, maintenance and removal from service of manure storage facilities) and the *Pennsylvania Technical Guide*.

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 control practices on fields, croplands and pastures included in the plan. 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) The plan shall contain a list of specific runoff control BMPs to address those critical runoff problem areas identified in the review required under paragraph (1). This list of runoff control BMPs may not be in conflict with other relevant plans, such as a current conservation plan, developed for the operation, unless otherwise justified in writing by the planner to the Commission or delegated conservation district.

(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.

(4) BMPs listed in the plan to address critical runoff problem areas shall be designed, installed, operated and maintained in accordance with the standards contained in the *Pennsylvania Technical Guide*.

(5) Although an erosion and sedimentation control plan, meeting the requirements of Chapter 102 (relating to erosion control), is not required as part of a plan under the act, meeting 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 activities such as agricultural plowing and tilling.

(6) For areas on rented land 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:

- (i) Implement the listed BMP.
- (ii) Enter into an agreement with the landowner requiring the landowner to implement the BMP.
- (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 FOR CAO PLANS

§ 83.331. Implementation schedule.

A plan or plan amendment shall contain a schedule that identifies when the necessary capital improvements and management changes will be made, consistent with the time frames in § 83.362 (relating to plan implementation).

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.

(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) (relating to determination of available nutrients).

(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 alternative manure utilization recordkeeping).

(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:

- (i) The locations and number of acres of nutrient application.
- (ii) The months of nutrient application.
- (iii) The rate of nutrient application for each field or crop group.

(4) Approximate annual crop yield levels for each crop group shall be recorded.

(5) Annual manure production calculated consistent with procedures in § 83.291(b)(2) shall be recorded.

§ 83.343. Alternative manure utilization recordkeeping.

(a) *Recordkeeping for manure transfers.*

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

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

(3) Computer-generated forms other than the manure transfer sheet 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.

(ii) When the exporter, or person working under the direction of the exporter, applies the manure to the land, the exporter is responsible for completion of section 2 of the Manure Transfer Sheet.

(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.

(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 manure is exported from a CAO, the exporter will provide the importer with a completed Manure Transfer 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) A concise educational publication describing the key concepts of nutrient management.

(4) Additional informational items as supplied by the Commission for this purpose.

(c) The Commission 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 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 no longer used for the storage of manure, removed from service, to prevent the pollution of surface water and groundwater, and the offsite migration of pollution, by meeting the standards contained in 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 Chapter 105 (relating to dam safety and waterway management).

(ii) The location and construction of facilities to be placed within a floodplain shall be consistent with local ordinances developed under the Pennsylvania Flood Plain Management Act (32 P. S. §§ 679.101—679.601), which relates to the dangers and damage of floodwaters.

(iii) The sides of facilities located in a floodplain shall be protected from erosion and scouring from a 25 year flood event.

(iv) For CAOs that were producing livestock or poultry on or before October 1, 1997, facilities, except reception pits and transfer pipes, may not be constructed:

(A) Within 100 feet of a perennial stream, river, spring, lake, pond or reservoir.

(B) Within 100 feet of a private water well, or open sinkhole.

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

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

(E) Within 100 feet of a property line, unless the landowners within the 100 feet distance from the facility otherwise agree and execute a waiver in a form acceptable to the Commission.

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

(G) Within 200 feet of a property line, where these facilities (except permanent stacking and compost facilities) are located on slopes exceeding 8%, where the slope

is toward the property line, or have 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) For CAOs on agricultural operations that come into existence after October 1, 1997, facilities, except reception pits and transfer pipes, may not be constructed:

(A) Within 100 feet of a perennial stream, river, spring, lake, pond or reservoir.

(B) Within 100 feet of a private water well, or open sinkhole.

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

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

(E) Within 200 feet of a property line, unless the landowners within the 200 foot distance from the facility otherwise agree and execute a waiver in a form acceptable to the Commission.

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

(G) Within 300 feet of a property line, where these facilities (except permanent stacking and compost facilities) are located on slopes exceeding 8%, where the slope is toward the property line, or have 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) The Commission or a delegated conservation district may waive the distance restrictions in subparagraph (iv)(A), (B) and (E)—(G), 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) would make the placement economically unreasonable or physically impractical.

(B) A site investigation—including consultation with affected landowners—has been conducted which demonstrates that the proposed system will protect water quality and protect against offsite migration of nutrients.

(C) The type, design and contingency plan developed for the facilities meet additional criteria the Commission or delegated conservation district, in consultation with the NRCS, may require to protect water quality, and protect against offsite migration of nutrients.

(D) In the case of a private water well, the well construction meets the criteria that the Commission, in consultation with the NRCS, deems necessary to protect water quality. There will be no waivers granted from the setback requirements for public water wells or sources.

(3) The designer of the manure storage facility required by the plan shall address the following:

(i) Verification of the minimum manure storage period and minimum manure storage volume documented in the current plan.

(ii) Determination of the type and dimensions of facilities considering the environmental and space limitations of the site, as well as the operator's preference.

(iii) An onsite investigation to evaluate the site suitability for a facility in accordance with the standards in 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 *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 *Pennsylvania Technical Guide*. 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) (relating to incidents causing or threatening pollution).

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

PLAN REVIEW AND IMPLEMENTATION FOR CAOS

§ 83.361. Initial plan review and approval.

(a) Plans or plan amendments required for CAOs shall be submitted for initial review and approval to delegated conservation districts or alternatively to the Commission for CAOs located in counties not delegated administrative 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 (relating to nutrient management certification).

(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 and 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.

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

(d) If a plan or plan amendment is disapproved, the operator submitting the plan or plan amendment for the first time shall have 90 days after receipt of the notice of disapproval to resubmit a revised plan or plan amendment.

(e) An agricultural operation that submits a complete plan or plan amendment is authorized to implement the same if the Commission or a delegated conservation district fails to act within 90 days of submittal. 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 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 extended upon approval of the Commission for cause shown or a plan amendment (see § 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 application rates shall be balanced as described in § 83.293 (relating to determination of nutrient application rates). 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 nutrient management specialist. If the agricultural operation is still consistent with the approved plan, 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 § 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.

PLAN AMENDMENTS AND TRANSFERS FOR CAOS

§ 83.371. Plan amendments.

(a) A plan amendment is required when 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:

(1) A net increase of greater than 10% occurs in AEU's per acre.

(2) A change in crop management that results in a reduction of greater than 20% in nitrogen necessary for realistic expected crop yields or the amount the crops will utilize for an individual crop year.

(3) A change in the method of excess manure utilization under § 83.301 (relating to excess manure utilization plans for CAOs).

(4) When calculations in the plan as originally submitted are in error, or figures used in the plan are inconsistent with those contained in the *Pennsylvania Agronomy Guide* and the *Manure Management Manual*, and adequate justification has not been given in writing for the inconsistency.

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

(6) When, 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.

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

§ 83.372. Amendments due to unforeseen circumstances.

Changes in the implementation of plans due to unforeseen circumstances shall be certified by a nutrient management specialist as meeting applicable requirements of this subchapter and submitted to the district within 30 days of implementation. The amendments called for under this section will not require the review and approval of the Commission or a delegated conservation district, but shall temporarily become part of the plan until normal operations are resumed. Unforeseen circumstances include the following:

(1) Outbreak of contagious disease. Manure management shall be consistent with the procedures in § 83.381 (relating to manure management in emergency situations).

(2) Failures or malfunctions of equipment or storage that require a change in manure handling procedures.

(3) Other unforeseen circumstances that cause a significant change in the management of nutrients on the agricultural operation, such as:

(i) Unforeseen weather conditions which significantly impact plan implementation or crop failure due to adverse weather conditions.

(ii) Unanticipated loss of rented land that would create a reduction of greater than 20% in the nitrogen necessary for expected crop yields.

§ 83.373. Plan transfers.

(a) An approved nutrient management plan may be transferred to a subsequent owner or operator of an agricultural operation by notification of the transfer to the Commission or delegated conservation district, unless the transfer results in operational changes requiring a plan amendment under § 83.371 (relating to plan amendments).

(b) If the transfer of the plan results in operational changes requiring a plan amendment under § 83.371, 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 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.

(b) The Department of Agriculture will notify the Commission when a quarantine is imposed on an agricultural operation covered by the act. The Department of Agriculture will supply the Commission and delegated conservation district with a copy of the quarantine document.

(c) Unless otherwise directed by the quarantine, an amended plan shall be developed addressing the management 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.

(d) Where 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.

(e) The temporary storage of manure during the quarantine shall be done under § 83.311 (relating to manure management).

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

(g) Standard soil tests will be required each year for crop fields where the implementation of the quarantine required that nutrients be applied in excess of the amount the crop can use. 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 PLANS

§ 83.391. Identification of agricultural operations and acreage.

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

- (1) The operator name, address and telephone number.
- (2) The signature of the operator, indicating the operator's concurrence with the practices outlined in the plan.
- (3) The counties where land included in the plan is located.
- (4) The watersheds of land included in the plan. The existence of special protection waters, as identified in § 93.9 (relating to designated water uses and water quality criteria), shall also be noted.

(5) The total acreage of the agricultural operation included in the plan.

(6) The total acreage of land on which nutrients shall be applied. The total acreage shall be separated into acres of owned land and acres of rented land.

(7) The number of AEUs per acre on the agricultural operation.

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

(b) The plan shall contain maps or aerial photographs of sufficient scale which clearly identify:

- (1) The location and boundaries of the agricultural operation.
- (2) Individual field boundaries under the plan.
- (3) Field number and acreage of each field.
- (4) The identification of all soil types and slopes on the agricultural operation. An NRCS soil survey map with the soil identification legend shall 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 § 83.404(5) (relating to nutrient application procedures).

§ 83.392. Summary of plan.

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

- (1) A chart listing:
 - (i) The total amount of manure generated on the operation annually.
 - (ii) The total amount of manure to be used on the operation annually.
 - (iii) The total amount of manure to be exported from the operation annually.
- (2) Nutrient application rates by field or crop group.
- (3) Procedures and provisions for the utilization or proper disposal of excess manure.

(b) 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 PLANS

§ 83.401. Determination of available nutrients.

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

(b) The amount and nutrient content of manure to be applied on the agricultural operation shall be determined as follows:

- (1) The plan shall include the average number of animals of each animal type, on a typical production day, for the agricultural operation.
- (2) The amount of manure produced and when it is available for spreading on the agricultural operation shall be calculated based on the average number of AEUs 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 manure, shall be included in determining the total volume of manure to be applied.

(3) For the preparation of the plan and plan amendments, it is recommended that the nutrient content of the manure be determined by using accepted manure sampling and chemical analysis methods as outlined in the *Manure Management Manual* or the *Pennsylvania Agronomy Guide*. When sampling and analysis are not done, the nutrient management specialist shall use 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. The nutrient content of the manure shall be recorded in the plan.

(c) The nitrogen available from manure shall be based on the appropriate availability factors such as those contained in the *Manure Management Manual* or *Pennsylvania Agronomy Guide*. 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.

(d) The residual nitrogen from legume crops and applications of manure, as described in the *Pennsylvania Agronomy Guide*, shall be recorded in the plan and credited when determining nutrient application rates.

(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, will not be 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.

(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 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 the Commission or a delegated conservation district.

(d) For 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 for the use of the higher yields to the Commission or delegated conservation district.

(e) The plan shall include a determination of the amount of nutrients necessary for realistic expected crop yields.

(f) The *Pennsylvania Agronomy Guide* or *Manure Management Manual* may be used to assist in determining the amount of nutrients necessary for achieving realistic expected crop yields.

§ 83.403. Determination of nutrient application rates.

(a) Nitrogen shall be applied only in the amounts necessary to achieve realistic expected crop yields or at a rate not exceeding what the crop will utilize for an individual crop year.

(b) The planned manure application rates shall be recorded in the plan. The planned manure application rate may be any rate equal to or less than the balanced manure application rate based on nitrogen. 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.

(c) The plan shall include calculations indicating the difference between the recommended nitrogen necessary for realistic expected crop yields and nitrogen applied including, but not limited to, manure, sludge, starter fertilizer and other fertilizer. 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) 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) Intended target spreading periods for the application of manure shall be included in the plan.

(3) Application rates and procedures shall be consistent with the capabilities, including capacity and calibration range of available application equipment.

(4) Application rates for liquid manure irrigation shall be based on the lesser of either the nutrient plan application rates determined in accordance with § 83.403(a) and (b) (relating to determination of nutrient application rates), or the rates determined to be within infiltration capabilities of the soil such as those contained in the NRCS *Pennsylvania Irrigation Guide* or the Midwest Plan Service *Livestock Waste Facilities Handbook*.

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

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

(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 active public drinking water source, unless other State or Federal laws or regulations require a greater isolation distance.

(iv) Within concentrated water flow areas in which vegetation is maintained, such as ditches, waterways, gullies and swales, during times when soil is frozen, snow covered or saturated.

(v) Within concentrated water flow areas in which vegetation is not maintained, such as intermittent streams, gullies and ditches.

(vi) 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 surface water flow is toward the identified area, when soil is frozen, snow covered or saturated.

(vii) 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 surface water flow is toward the identified area and where the slope is greater than 8% as measured within the 200 feet, during times when soil is frozen, snow covered or saturated.

(6) If winter spreading of manure is anticipated, 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.

ALTERNATIVE USES FOR EXCESS MANURE FOR VOLUNTEER OR FINANCIAL ASSISTANCE 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.

MANURE MANAGEMENT FOR VOLUNTEER OR FINANCIAL ASSISTANCE 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 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. Practices to be evaluated in this review include manure handling, collection, barnyard runoff control, 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 animal concentration areas.

(3) Manure storage facilities overflowing or maintained at levels above design full levels.

(4) Manure storage facilities that are sized for less than the projected manure accumulation based on the expected application periods used in the plan.

(5) Leaking or unstable manure storage facilities.

(b) As part of a plan certification, the nutrient management specialist shall assure that the review required under subsection (a) was undertaken in the preparation of the plan. The plan will contain those BMPs that are necessary to correct identified water contamination sources and protect surface water and groundwater. During the implementation of the approved plan, the BMPs shall meet the specifications contained in the *Pennsylvania Technical Guide*. 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. The BMP design shall be kept on record by the operator as a supplement to the plan

(c) The following BMPs may be used to protect water quality and to control water in farmstead, 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.

(2) Adequate collection of manure from animal concentration areas for utilization on cropland or for other acceptable uses.

(3) Diversion of contaminated runoff within animal concentration areas to a storage, lagoon, collection basin, vegetated filter area, or another suitable site or facility.

(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 concentrated water flow areas and areas where manure application is restricted or prohibited based on § 83.404(5) (relating to nutrient application procedures).

(6) Other appropriate BMPs acceptable to the Commission.

(d) When temporary manure stacking areas may be necessary for the implementation of the plan, the plan shall identify those areas available for the storage of manure due to unforeseen circumstances such as adverse weather conditions. Manure shall be removed from temporary stacking areas for utilization on cropland or other acceptable uses as soon as feasible.

(e) Information contained in other sections of the plan may be used by the specialist when addressing this section.

(f) The siting, design and installation of manure storage facilities shall meet the requirements in § 83.461 (relating to minimum standards for manure storage facilities) and the *Pennsylvania Technical Guide*.

STORMWATER RUNOFF CONTROL FOR VOLUNTEER OR FINANCIAL ASSISTANCE 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 control practices on fields, croplands and pastures included in the plan. 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) The plan shall contain a list of specific runoff control BMPs to address those critical runoff problem areas identified in the review required under paragraph (1). This list of runoff control BMPs may not be in conflict with other relevant plans, such as a current conservation plan, developed for the operation, unless otherwise justified in writing by the planner to the Commission or delegated conservation district.

(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.

(4) BMPs listed in the plan to address critical runoff problem areas shall be designed, installed, operated and maintained in accordance with the standards contained in the *Pennsylvania Technical Guide*.

(5) Although an erosion and sedimentation control plan, meeting the requirements of Chapter 102 (relating to erosion control), is not required as part of a plan under the act, meeting 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 activities such as agricultural plowing and tilling.

(6) For areas on rented land 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:

(i) Implement the listed BMP.

(ii) Enter into an agreement with the landowner requiring the landowner to implement the BMP.

(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 PLANS

§ 83.441. Implementation schedule.

A plan or plan amendment shall contain a reasonable implementation schedule. The schedule shall identify when the necessary capital improvements and management changes will be made.

RECORDKEEPING AND INFORMATIONAL REQUIREMENTS FOR VOLUNTEERS

§ 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) shall, at a minimum, be supported by the information required in this section and § 83.453 (relating to alternative manure utilization recordkeeping).

(b) The operator of an agricultural operation that develops a plan under the act 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) (relating to determination of available nutrients).

(2) Records of manure testing results and testing of other nutrient sources shall be maintained consistent with § 83.401(b)(3).

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

(i) The locations and number of acres of nutrient application.

(ii) The months of nutrient application.

(iii) The rate of nutrient application for each field or crop group.

(4) Approximate annual crop yield levels for each crop group shall be recorded.

(5) Annual manure production calculated consistent with procedures in § 83.401(b)(2) shall be recorded.

§ 83.453. Alternative manure utilization recordkeeping.

(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.

MINIMUM STANDARDS FOR MANURE STORAGE FACILITIES ON VOLUNTEER OR FINANCIAL ASSISTANCE OPERATIONS

§ 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).

(1) Manure storage facilities shall be designed, constructed, located, operated, maintained, and, when no longer used for the storage of manure, removed from service, to prevent the pollution of surface water and groundwater, and the offsite migration of pollution, by meeting the standards contained in the *Pennsylvania Technical Guide*, except when 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 Chapter 105 (relating to dam safety and waterway management).

(ii) The location and construction of facilities to be placed within a floodplain shall be consistent with local ordinances developed under the Pennsylvania Flood Plain Management Act (32 P. S. §§ 679.101—679.601), which relates to the dangers and damage of floodwaters.

(iii) The sides of facilities located in a floodplain shall be protected from erosion and scouring from a 25 year flood event.

(iv) For agricultural operations that were producing livestock or poultry on or before October 1, 1997, facilities, except reception pits and transfer pipes, may not be constructed:

(A) Within 100 feet of a perennial stream, river, spring, lake, pond or reservoir.

(B) Within 100 feet of a private water well, or open sinkhole.

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

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

(E) Within 100 feet of a property line, unless the landowners within the 100 foot distance from the facility otherwise agree and execute a waiver in a form acceptable to the Commission.

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

(G) Within 200 feet of a property line, where these facilities (except permanent stacking and compost facilities) are located on slopes exceeding 8%, where the slope is toward the property line, or have 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) For agricultural operations that come into existence after October 1, 1997, facilities, except reception pits and transfer pipes, may not be constructed:

(A) Within 100 feet of a perennial stream, river, spring, lake, pond or reservoir.

(B) Within 100 feet of a private water well, or open sinkhole.

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

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

(E) Within 200 feet of a property line, unless the landowners within the 200 foot distance from the facility otherwise agree and execute a waiver in a form acceptable to the Commission.

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

(G) Within 300 feet of a property line, where these facilities (except permanent stacking and compost facilities) are located on slopes exceeding 8%, where the slope is toward the property line, or have 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) The Commission or a delegated conservation district may waive the distance restrictions in subparagraph (iv)(A), (B) and (E)—(G), if the following can be demonstrated to the satisfaction of the Commission or delegated conservation district:

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

(B) A site investigation—including consultation with affected landowners—has been conducted which demonstrates that the proposed system will protect water quality and protect against offsite migration of nutrients.

(C) The type, design and contingency plan developed for the facilities meet additional criteria the Commission or delegated conservation district, in consultation with the NRCS, may require to protect water quality, and protect against offsite migration of nutrients.

(D) In the case of a private water well, the well construction meets the criteria that the Commission, in consultation with the NRCS, deems necessary to protect water quality. There will be no waivers granted from the setback requirements for public water wells or sources.

(3) The designer of the manure storage facility required by the plan shall address the following:

(i) Verification of the minimum manure storage period and minimum manure storage volume documented in the current plan.

(ii) Determination of the type and dimensions of facilities considering the environmental and space limitations of the site, as well as the operator's preference.

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

(b) The repair of an existing manure storage facility that is part of a plan developed under the act shall comply with applicable standards in 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 *Pennsylvania Technical Guide*. 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) (relating to incidents causing or threatening pollution).

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

PLAN REVIEW AND IMPLEMENTATION FOR VOLUNTEERS OR FINANCIAL ASSISTANCE RECIPIENTS

§ 83.471. Initial plan review and approval.

(a) Plans or plan amendments for agricultural operations other than CAOs 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 administrative 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 (relating to nutrient management certification).

(b) A plan or plan amendment voluntarily developed for an agricultural operation other than a CAO 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 and 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.

(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), 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 application rates shall be balanced as described in § 83.403 (relating to determination of nutrient application rates). 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 nutrient management specialist. If the agricultural operation is still consistent with the approved plan, 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 § 83.481 (relating to plan amendments)).

(d) Limited liability protection, as described in § 83.206, is afforded to those operators properly implementing an approved plan.

PLAN AMENDMENTS AND TRANSFERS FOR VOLUNTEERS AND FINANCIAL ASSISTANCE RECIPIENTS

§ 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 plan amendment is required when the operator of an agricultural operation 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:

(1) A net increase of greater than 10% occurs in AEUs per acre.

(2) A change in crop management that results in a reduction of greater than 20% in nitrogen necessary for realistic expected crop yields or the amount the crops will utilize for an individual crop year.

(3) When calculations in the plan as originally submitted are in error, or figures used in the plan are inconsistent with those contained in the *Pennsylvania Agronomy Guide* and the *Manure Management Manual*, and adequate written justification has not been given for the inconsistency.

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

(5) When, 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 an operation changes from a non-CAO status to a CAO, and the original plan needs to be updated to include those items required of only CAO plans.

(b) A plan amendment, as required in 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).

§ 83.482. Amendments due to unforeseen circumstances.

Changes in the implementation of approved plans due to unforeseen circumstances shall be certified by a nutrient management specialist as meeting applicable requirements of this subchapter and submitted to the district within 30 days of implementation. The amendments called for under this subsection will not require the review and approval of the Commission or delegated conservation district, but shall temporarily become part of the plan until normal operations are resumed. Unforeseen circumstances shall include the following:

(1) Outbreak of contagious disease. Manure management shall be consistent with the procedures in § 83.491 (relating to manure management in emergency situations).

(2) Failures or malfunctions of equipment or storage that require a change in manure handling procedures.

(3) Other unforeseen circumstances that cause a significant change in the management of nutrients on the agricultural operation, such as:

(i) Unforeseen weather conditions which significantly impact plan implementation, or crop failure due to adverse weather conditions.

(ii) Unanticipated loss of rented land that would create a reduction of greater than 20% of the nitrogen necessary for expected crop yields.

§ 83.483. Plan transfers.

(a) An approved plan may be transferred to a subsequent owner or operator of an agricultural operation by notification of the transfer to the Commission or a delegated conservation district, unless the transfer results in operational changes requiring plan amendment under § 83.481 (relating to plan amendments).

(b) If the transfer of the approved plan results in operational changes requiring plan amendment under § 83.481, the plan amendments 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 VOLUNTEER OR FINANCIAL ASSISTANCE OPERATIONS

§ 83.491. Manure management in emergency situations.

(a) 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.

(b) The Department of Agriculture will notify the Commission when a quarantine is imposed on an agricultural operation covered by the act. The Department of Agriculture will supply the Commission and delegated conservation district with a copy of the quarantine document.

(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), shall develop an amended plan addressing the management 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.

(d) 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.

(e) The temporary storage of manure during the quarantine shall be done in accordance to § 83.421 (relating to manure management).

(f) The application of manure during the quarantine shall be done in accordance with § 83.404(5) (relating to nutrient application procedures).

(g) Standard soil tests will be required each year for crop fields when the implementation of the quarantine required that nutrients be applied in excess of the amount the crop can use. 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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