# Regulatory Analysis Form

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JCD Number: 243

(1) Agency

State Conservation Commission

(2) I.D. Number (Governor's Office Use)

(3) Short Title

Revisions to the Nutrient Management Regulations

(4) PA Code Cite

25 Pa. Code, Chapter 83 Subchapter D

(5) Agency Contact & Telephone Numbers

Primary contact person: Douglas A. Goodlander, Director of Nutrient Management, (717) 787-8821

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(6)Type of Rulemaking (check one)

☒ Proposed Rulemaking
☐ Final Order Adopting Regulation
☐ Final Order, Proposed Rulemaking Omitted

(7) Is a 120-Day Emergency Certification Attached?

☒ No
☐ Yes: By the Attorney General
☐ Yes: By the Governor

(8) Briefly explain the regulation in clear and non-technical language.

*These revisions are provided to bring the program in-line with current scientific and programmatic findings relating to the on-farm loss of nutrients, as recent research has demonstrated a need to revise some of the existing criteria. These revisions will allow the Commission to more effectively address nutrient losses from high-density animal operations, with minimal negative financial impact on the industry. The major revisions included in this proposal will provide the Commission with increased oversight on phosphorus losses from high-density livestock and poultry operations through the use of a phosphorus index, and increased oversight of the application of manure exported from these animal facilities. These revisions will also provide better clarification of the Commission's criteria for addressing various nutrient management issues on regulated animal operations and ensure that all high-density animal operations managing livestock or poultry are appropriately and consistently addressed through this regulation.*

(9) State the statutory authority for the regulation and any relevant state or federal court decisions.

*Section 4(1) of the Nutrient Management Act, (3 P.S. §1704(1)), Section 4 of the Conservation District Law (3 P.S. § 852), Section 503(d) of the Conservation and Natural Resources Act, (71 P.S. §1340.503(d)).*

(10) Is the regulation mandated by any federal or state law or court order, or federal regulation? If yes, cite the specific law, case or regulation, and any deadlines for action.

*Yes. These regulations are required by the Pennsylvania Nutrient Management Act (3 P.S. §§ 1701 – 1719). The definition of a Concentrated Animal Operation (CAO) defined under the Act, is required to be revisited and revised through regulations if necessary, within five years of the October 1, 1997 effective date, consistent with this regulation revision effort. A recent Environmental Hearing Board decision requires that Nutrient Management Plans submitted under the Act contain considerations for phosphorus impacts from land application of nutrients, and these are included in these proposed revisions. (Adam v. SCC, EHB Docket No. Docket No. 2002-189-MG (May 12, 2004)).*

(11) Explain the compelling public interest that justifies the regulation. What is the problem it addresses?

*The implementation of these revisions to the current Nutrient Management Act regulations is necessary to ensure that the program requirements appropriately address the latest scientific understanding concerning on-farm nutrient losses, and to address programmatic issues of concern raised about the current program. This proposal is a key component of Pennsylvania's efforts to ensure the industry trend toward higher intensity animal operations referred to as Concentrated Animal Operations (CAOs) does not negatively impact Pennsylvania's water quality.*

(12) State the public health, safety, environmental or general welfare risks associated with non-regulation.

*This proposal was developed by the Commission, with the assistance of the Nutrient Management Advisory Board, to ensure that water quality is not negatively impacted by nutrient pollution coming from CAOs. This is a critical issue in the Commonwealth as these high-density animal operations become more commonplace in Pennsylvania. Protecting water quality is key to protecting public health and the environment. These proposed revisions will provide the necessary program enhancements to protect water quality in regards to nutrient management activities carried out by high-density animal operations.*

(13) Describe who will benefit from the regulation. (Quantify the benefits as completely as possible and approximate the number of people who will benefit.)

*Farmers will benefit from this proposal by establishing refined nutrient management planning criteria that will further enhance their ability to protect the quality of water used on their operations. This proposal will assist the current 840 CAO operations, and the approximately 500 additional CAOs that will be brought into the program through the revised regulations, in enhancing their water quality protection efforts and give further credibility to their actions to protect local and regional water resources. The additional 950 farmers who have voluntarily participated under the current regulations in order to protect water quality will capitalize from the similar water quality and environmental credibility benefits afforded to CAOs under this regulation. These refined regulations will assist farmers in their efforts to effectively utilize nutrient resources on their operations.*

*The current Nutrient Management Act program addresses approximately 10.7 million tons of manure, which is approximately 43% of the manure generated in the Commonwealth. This equates to over 140 million pounds of nitrogen and 127 million pounds of phosphorus. This proposal will refine our planning and implementation criteria to provide the necessary direction to these farmers to assist them in improving their current environmental protection efforts in their utilization of this important nutrient resource as well as commercial fertilizers used on the operation.*

*Citizens of Pennsylvania will benefit from this proposal as they all rely on a clean water supply to meet personal and industrial water needs. These program improvements will further protect and improve our Commonwealth's water resources thus ensuring a strong economic future for Pennsylvania's industries including the agricultural industry and the significant tourism industry.*

*Lastly, this proposal will strengthen the Commonwealths efforts to support and implement alternative manure technologies to assist various areas of our state in addressing areas of nutrient imbalance. This effort is core to the Commonwealth's efforts to provide long-term sustainability for the agricultural industry, and a long-term and integrated effort to protect water resources in Pennsylvania.*

(14) Describe who will be adversely affected by the regulation. (Quantify the adverse effects as completely as possible and approximate the number of people who will be adversely affected.)

*This proposal will define some animal operations that were not originally defined as CAOs, as a regulated agricultural operation under the Nutrient Management Act (CAOs). Therefore, these newly defined CAOs will be required to develop and implement an approved nutrient management plan. These new farms coming into the program will primarily be larger-scale horse operations that meet the animal density threshold of 2 AEUs per acre. These farms are to be supported in their regulatory compliance efforts similar to those farms that are currently defined as CAOs through educational and technical support provided to these individuals as well as financial assistance funding for the development and implementation of their nutrient management plans. An estimated 500 additional operations are expected to will fall under the new CAO definition provided in these revisions.*

*This proposal will affect the current regulated community (approximately 840 CAOs), requiring them to update their current nutrient management plans (consistent with their current plan update timeframe) to incorporate the new criteria proposed in these revisions. The Commission is budgeting funds to help offset the cost of these plan updates for the regulated community. Also, a portion of our current CAOs may need to find additional land to export their manure, or other alternative uses for the manure they produce, due to the phosphorus index restricting manure application on fields identified as having a high likelihood of phosphorus loss to surface water bodies. The Commission is seeking additional funding to support alternative utilization or processing options for farmers to assist them in meeting this need. Some of the current CAOs may also need to find additional importing acres for their manure due to the added setback requirements for manure application on importing lands. Developing an approved nutrient management plan for importing sites can minimize these setbacks.*

*This proposal will require those individuals or companies that commercially transport, apply or broker manure from CAOs and volunteer operations, meet testing and training criteria established by the Commission to ensure they are knowledgeable and follow proper handling, application and record keeping criteria associated with manure. There are already 124 persons who voluntarily came forward and have met these requirements. This demonstrates the industry's willingness to meet this requirement and their desire to have the increased public credibility this process will give them. The Pa Department of Agriculture will provide trainings and tests at little or no cost to the industry to meet these requirements. There are estimated to be 300 to 500 of these individuals currently in Pennsylvania.*

(15) List the persons, groups or entities that will be required to comply with the regulation. (Approximate the number of people who will be required to comply.)

*This proposal will affect the current 840 CAOs. The proposal will also affect an additional 500 operations anticipated to fall under the revised CAO definition. The proposal will affect any new CAO operation coming into Pennsylvania. This proposal may affect any of the remaining 59,000 Pennsylvania farmers who wish to voluntarily comply with the provisions of this act, or who choose to import manure from the CAOs.*

*This proposal will affect the approximate 300 to 500 commercial manure haulers/applicators and brokers, requiring them to meet certain training, testing and record keeping requirements imposed through this regulation.*

(16) Describe the communications with and input from the public in the development and drafting of the regulation. List the persons and/or groups who were involved, if applicable.

*The State Conservation Commission relied on input from the 66 county conservation districts involved with the program at the local level. The conservation district staff and directors represent individuals with various backgrounds from all areas of the Commonwealth. The conservation districts provided important guidance to the Commission concerning the effectiveness of the current regulations and where they saw the need for programmatic refinements to ensure program effectiveness and on-farm practicality.*

*The 15-member Nutrient Management Advisory Board worked for over two years providing input to the Commission in the development of these proposed revised program criteria. The Advisory Board has reviewed the substantive revisions in this proposal and have recommended them for inclusion in the program. This Advisory Board is established by the Act to provide public direction to the Commission in the development of program regulations and is comprised of representatives from various poultry and livestock industries, veterinary science, the environmental community, academia, private non-farmer citizens, and local government.*

*The Commission met with various farm organizations, citizens groups, environmental organizations, and industry groups to describe the various issues considered for revision and to extract input from these groups. The proposal presented here is an effort of the Commission to develop a program that incorporates the sometimes conflicting input from these groups to advance the program by incorporating necessary enhancements for water quality protection in a manner that is cost effective and practical for the agriculture industry.*

(17) Provide a specific estimate of the costs and/or savings to the regulated community associated with compliance, including any legal, accounting or consulting procedures that may be required.

*The revised planning criteria outlined in this proposal is expected to result in an 50% increase in the cost for developing a nutrient management plan. The current average cost of a plan is $938.00. Incorporating the new criteria into an existing plan is estimated to cost an additional $470 per CAO. The Commission is planning to provide cost share assistance to farmers to offset the cost of plan updates for the current CAOs. With the 75% state cost share factored into the analysis, the additional cost to a farmer to update a current CAO plan would be $118 per CAO ($470 total cost, $352 cost share, $118 farmer cost). There are currently 840 CAOs in Pennsylvania; therefore, this would calculate to a total increase cost of $99,120 for the existing 840 CAOs to develop their required plan updates over a three-year time frame.*

*The proposed revisions will require an estimated 60% of our existing CAOs (504 CAOs) to export some increased portion of their generated manure due to the phosphorus index element of the revised regulations identifying certain fields as a high risk of phosphorus loss to surface water bodies. Approximately 40% of these*

*CAOs (202 CAOs) will be able to recoup the cost of transportation of the manure from those operators receiving the manure. The remaining farmers needing to transport additional manure from their farm sites (302 CAOs) will have to pay manure transportation costs to export the additional excess manure to appropriate sites. The cost per operation needing to export additional excess manure is estimated to be $1,500 annually, with a total annual cost to the regulated community of $453,000. The Commission is proposing to assist the existing regulated community to meet this financial burden by funding alternative manure processing or utilization technologies and industries to effectively and economically utilize the manure in an environmentally sound manner.*

*The proposal will bring additional farms into the CAO category. These newly regulated farms will primarily be larger-scale horse operations. This will require these operations to develop and implement nutrient management plans. These operations are commonly less cropland extensive in nature and generally have less complexity relating to the management of manure on the farm; therefore, their planning costs are expected to be less than the cost of an average nutrient management plan. Based on past program experience, the estimated cost of developing a plan for these newly defined operations will be approximately $600. This would translate into a total cost of $300,000 to develop nutrient management plans for the 500 newly defined CAOs. This regulation continues to provide a cost share program to offset this cost for newly defined CAOs. With the 75% cost share factored into the cost per plan, the final cost per new CAO would be $150 ($600 total cost, $450 cost share, $150 farmer cost), this would calculate to a total cost of $75,000 for the 500 newly defined CAOs to develop their required plans over a two-year time frame*

*The proposed revisions will induce farmers to install conservation practices at a faster rate in order to reduce their phosphorus index values for their farm fields and to address the manure management controls required for animal concentration areas (barnyards and feedlots). This conservation work will be consistent with those practices in their current Erosion and Sedimentation Control Plans and the Pennsylvania Manure Management Manual, as required by existing DEP regulations, and therefore no additional costs over what is currently required under existing regulations are anticipated for these efforts.*

(18) Provide a specific estimate of the costs and/or savings to local governments associated with compliance, including any legal, accounting or consulting procedures that may be required.

*There is an expected substantial decrease in the cost to local municipalities for water treatment efforts as these revised regulations will further protect the local water resources administered by local governments. For instance, there are about 100 public water suppliers in Lancaster County alone that apply treatment processes to remove excess nutrients from their water supplies. Costs to public water suppliers for the treatment of contaminated water can run well over $1.0 million for a single municipality. The revised criteria in this proposal will further protect these resources from nutrient contamination; therefore, decreasing or eliminating local water treatment costs.*

*Local governments in an increasing number of areas of the state are being challenged to provide additional nutrient management requirements (often times relating to phosphorus and exported manure) on these high intensity animal operations that the Nutrient Management Act regulates. These local governments have in a number of instances developed additional criteria and incorporated these requirements into local ordinances in order to address a public concern in their area. The revised criteria in this proposal will provide local governments with the water quality criteria that they are being challenged to add at the local level, thus reducing*

*the pressure on them to develop additional local ordinances and their likelihood of litigation concerning the legality of their local ordinances given the local ordinance preemption clause included in the Act. This will reduce local government legal costs to an extent that cannot be estimated with any degree of certainty.*

(19) Provide a specific estimate of the costs and/or savings to state government associated with the implementation of the regulation, including any legal, accounting, or consulting procedures that may be required.

*There will be increased costs to the state to administer these water quality program revisions.*

*State government will need to provide additional funding to the Plan Development Incentives Program which provided cost share funding to farmers for the development of a nutrient management plan since 1997. This funding effort is essential to ensure that farmers are not negatively impacted by these enhanced planning requirements. An approximate $200,000 annual increase in this program area for the next 3 years ($175,000 year one, $250,000 for year two and $100,000 for the third year) is necessary to meet these new planning needs. The program is currently funded at $200,000 a year.*

*State government will need to provide increased funding to county conservation districts who provide necessary local administration of the program and oversight of the regulated community. Conservation districts will need to hire additional staff to enhance their program administrative and oversight efforts due to the increased program criteria and oversight of an expanding regulated community. This local level involvement and commitment to assisting the Commonwealth in its implementation of this program has provided for the success of this important water quality program. The Commission currently allocates $1.78 million to conservation districts to provide local administration of the program. The additional conservation district plan review workload and compliance efforts imposed as a result of these regulatory revisions will require an additional $800,000 annually to conservation districts to hire the additional locally based program staff.*

*State government will need to continue to provide financial resources to the regulated farm community to help offset the costs of implementing the practices in their approved nutrient management plans. The revised regulations may require some operations to build new manure storage facilities (especially poultry operations), and increased Animal Concentration Area (ACA) control practices implementation primarily on newly defined horse CAOs. The state funding needed to provide financial assistance to assist the regulated community in implementing these newly required practices is estimated to be $2,600,000 for manure storage construction and $550,000 for ACA improvements. These increased implementation costs will be spread out over the first five years of implementing the revised regulations.*

*The final additional state government cost will be for increased Commission staff needs to address the expanded program under the revised regulations. There will be a need for two additional program specialists at the Commission office to help oversee the implementation of the new requirements, especially those related to the horse industry. The cost for these additional positions is estimated to be $120,000 annually.*

(20) In the table below, provide an estimate of the fiscal savings and costs associated with implementation and compliance for the regulated community, local government, and state government for the current year and five subsequent years.

| | Current FY Year | FY +1 Year | FY +2 Year | FY +3 Year | FY +4 Year | FY +5 Year |
|---|---|---|---|---|---|---|
| **SAVINGS:** | NA | NA | NA | NA | NA | NA |
| **Regulated Community** | NA | NA | NA | NA | NA | NA |
| **Local Government** [1] | NA | NA | NA | NA | NA | NA |
| **State Government** | NA | NA | NA | NA | NA | NA |
| **Total Savings** | NA | NA | NA | NA | NA | NA |
| **COSTS:** | NA | NA | NA | NA | NA | NA |
| **Regulated Community** [2] | NA | 258,000 | 1,083,000 | 1,483,000 | 1,650,000 | 1,650,000 |
| **Local Government** | NA | NA | NA | NA | NA | NA |
| **State Government** [3] | NA | 535,000 | 1,630,000 | 1,795,000 | 1,865,000 | 1,690,000 |
| **Total Costs** | NA | 793,000 | 2,713,000 | 3,278,000 | 3,515,000 | 3,340,000 |
| **REVENUE LOSSES:** | NA | NA | NA | NA | NA | NA |
| **Regulated Community** | NA | NA | NA | NA | NA | NA |
| **Local Government** | NA | NA | NA | NA | NA | NA |
| **State Government** | NA | NA | NA | NA | NA | NA |
| **Total Revenue Losses** | NA | NA | NA | NA | NA | NA |

(20a) Explain how the cost estimates listed above were derived.

[1] *Savings to local governments are not able to be quantified but are expected to be substantial as these revisions further the Commonwealth's efforts to prevent nutrient pollution to water resources provided by these entities. The pollution prevention efforts called for under this proposal will assist local governments in reducing costs associated with applying treatment to remove excess nutrients from drinking water.*

[2] *The 840 existing CAOs will be required to update their nutrient management plans to meet the new program criteria incorporated into this proposal. The regulated community is expected to incur an increased cost of $100,000 spread out over the next 3 years to develop these revised plans (total cost per operation to revise there plan estimated to be $470, of which $350 would be provided through our cost share program, and $120 would be paid for by the producer). The financial assistance program providing assistance for this effort would be the Commission's existing Plan Development Incentives Program (PDIP) provided for in these regulations.*

*Approximately 15% of the existing CAOs (primarily poultry operations) are anticipated to need additional manure storage facilities in order to address the revised manure application and exporting criteria. Assuming a $40,000 total cost per operation to install this practice on these poultry CAOs, the cost to the regulated community (assuming 50% of these costs will be addressed through financial assistance programs) is $2,600,000 spread out over a six-year period.*

*Based on the proposed revised manure application and exporting criteria, approximately 500 existing CAOs are anticipated to require additional manure exporting sites for their operations, of which 300 of these are not anticipated to be able to recoup these increased manure exporting costs through the marketing of the manure. This increased annual operational cost is anticipated to be approximately $1,500 per affected CAO with a total estimated cost to the industry annually of $453,000. The Commission is proposing to assist the existing regulated community to meet this financial burden by funding alternative manure processing or utilization technologies and industries to effectively and economically utilize the manure in an environmentally sound manner.*

*There will be an estimated 500 new CAOs (primarily larger-scale horse operations) incorporated into the program due to the revised CAO definition criteria included in this proposal. These new CAOs will be required to develop a nutrient management plan under the Act. These operations are anticipated to be less cropland extensive in nature and generally have less complexity relating to the management of manure on the farm; therefore, their planning costs are estimated to be less than the current cost of the average nutrient management plan. Plans for these operations are anticipated to cost approximately $600 per farm, of which the Commission's PDIP program can provide 75% assistance, or $450; therefore, the remaining $150 would be a cost to the CAO. Costs to this entire sector of the animal industry is estimated to be $75,000 spread out over the first two years of implementing the revised regulations.*

*30% of the new CAOs (150 CAOs) are anticipated to require the construction of various BMPs in order to meet the water quality initiatives in their approved nutrient management plan. These practices are thought to primarily be barnyard improvements with an estimated cost of approximately $15,000 per CAO. The cost to this entire sector of the industry for these BMPs on new CAOs (assuming 50% cost share for 75 of these operations) is $1,700,000, spread out over a five-year period.*

*[3] State costs included above include:*
*$800,000 annually ($400,000 for "FY+1") to provide the necessary additional staff resources to the conservation districts to carry out the additional program criteria outlined in the proposal.*

*$120,000 annually ($60,000 for "FY+1") to provide two additional staff positions at the Commission office to address the increased work effort needed to administer and enforce the revised regulations and newly defined CAOs.*

*$525,000 spread out over four years, to provide additional funding through the Plan Development Incentives Program to cost share the development of plans and plan amendments called for under this program revision.*

*$2,600,000 spread out over six years, to provide additional cost share funding to currently defined CAOs for the implementation of new manure storage facilities required under the revised regulations.*

*$550,000 spread out over five years, to provide additional cost share funding to newly defined CAOs for the implementation of BMPs to implement their approved plans.*

(20b) Provide the past three-year expenditure history for programs affected by the regulation.

| Program | FY –3 (2000-01) | FY –2 (2001-02) | FY –1 (2002-03) | Current FY (2003-04) |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| DEP (NM Fund): Education, research, and technical assistance | $1,190,000 | $1,265,000 | $1,245,000 | $1,788,000 |
| PDA (NM Fund): Planning, loans, grants, and technical assistance | $3,029,000 | $6,687,000 | $4,136,000 | $4,852,000 |
| PDA (NM Fund): Nutrient Management - Administration | $0 | $197,000 | $248,000 | $254,000 |

(21) Using the cost-benefit information provided above, explain how the benefits of the regulation outweigh the adverse effects and costs.

*Clean water is essential to the agricultural industry as well as Pennsylvania's other many industries and all of Pennsylvania's citizens. Recreation and tourism in Pennsylvania are some of the other major industries in Pennsylvania and they remain strongly dependent upon clean water. For water supplies, it is less expensive to protect the quality of the water source than it is to attempt to treat it once it is contaminated.*

*The improved efficiency of proper nutrient management often times translates into a reduction in farm expenses and therefore an increase in farm profitability.*

*The financial assistance program offered by the Commission to assist the regulated community will minimize the cost of regulatory compliance to the regulated community.*

*The expansion of the animal industry is being challenged across the state due to public concern that this growth will have a negative impact on the environment of Pennsylvania. The provisions of this proposal will further the Commonwealth's efforts to ensure that these operations are protective of water quality and will therefore address the water quality concerns of the public associated with the expansion of the animal industry in Pennsylvania. This will allow farming operations to expand in order to allow for their economic sustainability and therefore the sustainability of the industry in Pennsylvania.*

*The sustainability of the agricultural industry is increasingly dependent on the industry's ability to co-exist with its non-agricultural neighbors. The requirements imposed through these revised regulations are practical for the industry to implement and will help ensure the ability of the agricultural industry to co-exist with its neighbors and are therefore critical to the long-term sustainability of the industry.*

(22) Describe the nonregulatory alternatives considered and the costs associated with those alternatives. Provide the reasons for their dismissal.

*These regulations are required under Pennsylvania's Nutrient Management Act (3 P.S. §§ 1701 – 1719). These proposed revisions refine and enhance the initial efforts of the Commission to address the requirement to provide regulations to implement the Act.*

*The provisions established under these regulations are only required of a small segment of the agricultural industry. This small portion of the industry is considered to have a higher potential for nutrient losses from their operations, as opposed to operations of a lower animal density, which are not regulated under this Act. The public is very interested and has often expressed the desire for the state to increase its regulatory pressure on this portion of the animal industry. To address this issue without regulatory authority would minimize the implementation of these proven criteria on high animal density operations and would prompt local municipalities to take on this effort themselves which would mean very inconsistent and possibly inappropriate and ineffective*

*criteria throughout the state. These proposed revisions to the regulations are necessary to address the latest in scientific understanding of nutrient loss from farm operations and are necessary to ensure that the current regulations are effective in addressing nutrient losses from high density animal operations.*

*The remaining, non-CAO portion of the agricultural industry, which represents the vast majority of that industry, is encouraged to voluntarily follow the criteria established under this Act which provides technical and financial support to these volunteer farmers and also by providing limited liability protection under the Act for all farmers implementing an approved plan under the Act.*

*Educational efforts are a key component of maximizing the effect of this program, on all farms, in all areas of the state. Pennsylvania's Nutrient Management Act educational program provides excellent direction to all farmers in the proper use of manure and fertilizer nutrients thus maximizing the benefit of this pollution prevention program.*

(23) Describe alternative regulatory schemes considered and the costs associated with those schemes. Provide the reasons for their dismissal.

*The Nutrient Management Advisory Board considered numerous options to address an improved understanding of nutrient losses from farms. The Advisory Board spent over two years considering the various options and formulating the revisions provided in this proposal. The proposal presented here attempts to provide maximum flexibility to the regulated community to address nutrient loss issues on their farms. This flexibility will ensure the industry's ability to successfully meet the water quality protection goal of the Act.*

(24) Are there any provisions that are more stringent than federal standards? If yes, identify the specific provisions and the compelling Pennsylvania interest that demands stronger regulation.

*These regulations have no counterpart at the federal level. The most comparable regulation at the federal level is EPA's Concentrated Animal Feeding Operation (CAFO) program under 40 CFR Part 122, which has been recently revised through new federal regulations. The federal CAFO program requirements are based on animal numbers and Pennsylvania's Nutrient Management Act requirements are based on animal density. Pennsylvania's animal density criteria is most effective in defining those operations most likely to have nutrient management issues on their operations and is therefore the preferred criteria over the federal animal numbers criteria. Pennsylvania's DEP, through delegation with EPA, implements the federal CAFO permitting requirements for CAFO farms in Pennsylvania and DEP is proposing to continue to use Pa Nutrient Management Act program requirements to serve as the technical criteria for these federally regulated farms, as DEP has done for the past 3 years. Therefore, it is critical that the Commission's nutrient management criteria are consistent with the CAFO criteria to allow for this program coordination, which has made these programs in Pennsylvania a success.*

*This proposal includes a phosphorus provision which is consistent with EPA's new regulatory requirements for CAFOs and the Pennsylvania USDA NRCS nutrient management planning standard. NRCS currently requires Pennsylvania farmers to develop and implement a phosphorus indexed nutrient management plan in order to receive federal funding or federal technical assistance for the installation of manure management practices.*

*The other major revision included in this proposal is the inclusion of nutrient balance sheets for importing operations. This new provision addresses exported manure consistent with Pennsylvania's current federally mandated CAFO program requirements that require nutrient balance sheets and signed agreements for these federally regulated farms.*

(25) How does this regulation compare with those of other states? Will the regulation put Pennsylvania at a competitive disadvantage with other states?

*Nutrient Management program technical criteria are very similar in the various states throughout the nation, under the direction of EPA. The EPA CAFO regulations have established base nutrient management program requirements for all states throughout the nation which are similar to those included in this proposal, including the proposed phosphorus index provision.*

*States throughout the nation generally require the limitation of manure applications based on crop removal of nitrogen and some form of accounting through the plan for the loss of phosphorus. Pennsylvania's phosphorus index has been developed by nationally recognized experts at Penn State and the USDA Agricultural Research Service to ensure that it will provide important water quality benefits using a flexible format that will be practical for the farm community to implement. States are providing for setbacks for manure application to address direct manure runoff from regulated farms.*

*The revised exported manure requirement in this proposal provides additional flexibility for farmers in comparison to programs in our neighboring states of Delaware and Maryland. In these neighboring states, all farmers are required to have a nutrient management plan, therefore importers would be required to have a complete nutrient management plan for their operations. In Pennsylvania we are proposing to require either nutrient balance sheets or a nutrient management plan for these importing operations. This will provide additional flexibility to the regulated community while still addressing the need to properly utilize and track the manure exported from regulated operations.*

*The provisions in this proposal will provide for a more sustainable agricultural industry in Pennsylvania which is key to making for a strong and competitive industry today and into the future. These provisions in this proposal will ensure the farm community can continue to operate economically and still maintain proper water quality in Pennsylvania.*

(26) Will the regulation affect existing or proposed regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.

*This proposal is a revision to the current Nutrient Management Act regulations found in 25 Pa. Code. §§ 83.201 - 83.461. This proposal will also affect the Commission's financial assistance programs developed to assist animal operations in complying with the law.*

*The Pennsylvania Department of Agriculture has developed a certification program under 7 Pa. Code §§ 130b.1 – 130b.51. This proposal will affect the activities of those certified specialists certified under the PDA program.*

*These regulations continue to contain provisions that affect operations found to be in violation of the Clean Streams Law, possibly requiring them to develop and implement nutrient management plans meeting the requirements of this Act. These regulations are written to coordinate with DEP rules and regulations pertaining to all operations utilizing manure (25 Pa. Code § 91.36) and operations required to obtain a federal NPDES CAFO permit (25 Pa. Code §§ 92.1, 92.5a).*

(27) Will any public hearings or informational meetings be scheduled? Please provide the dates, times, and locations, if available.

*The Commission anticipates holding two informational meetings soon after the publication of the proposed regulation revisions. There is anticipated to be one meeting in the Lancaster Farm and Home Center and the*

*other meeting is anticipated to be held in an area more accessible to the western portion of the state. These informational meetings will be held from 7:00 p.m. to 9:00 p.m. and will include an opportunity for questions from the audience.*

*The Commission anticipates holding the two public hearings approximately four weeks following the date of the public informational meetings. These hearings will be held in the same locations as the public informational meetings. The hearings will begin at 7:00 p.m. at each of the locations.*

(28) Will the regulation change existing reporting, record keeping, or other paperwork requirements? Describe the changes and attach copies of forms or reports which will be required as a result of implementation, if available.

*The existing regulations require records to be submitted documenting the adherence to certain manure exporting scenarios. Under the proposed revisions to the program, this submission of records to the county conservation district or the Commission will no longer be required due to the program's newly implemented annual CAO inspection where these records are reviewed at the farm level by program staff.*

*The revised regulations will impose record keeping requirements on commercial manure haulers/applicators, brokers, and importing operations that do their own application, in order to document the application of manure on importing sites. These records will be available on site to program staff on inspection to ensure that proper application rates and methods have been used for manure generated on CAOs. These records will include the date of application, application areas, observation of setback distances, application method, and application rate.*

*The revised regulations will require Manure Export Sheets as well as the above exported manure record keeping requirements to be used for farms voluntarily complying with regulations ("VAOs") as well as CAOs, where in the past this record keeping requirement only pertained to CAOs. Even though this record keeping requirement has been added to the VAO sector of the agricultural community, the Commission does not expect that this new VAO requirement to be a significant hardship because, based on the Commission's records of the exiting 950 VAOs in Pennsylvania, only 3.2% of the manure generated on VAOs is exported off of the operation where it is produced.*

*The revised regulations will require the engineer that is designing a manure storage on a CAO or VAO, to submit to the conservation district or Commission, a verification that the design has been completed properly and a construction inspection schedule that will be followed during construction, at least two weeks prior to construction.*

*The revised regulations will require the operator to submit a copy of the phosphorus index data spreadsheet with the nutrient management plan in order to document the phosphorus index figures used in the plan. The USDA Agricultural Research Service has developed and is providing to specialists, a computer program to assist planners with the development of the phosphorus index and in the generation of the phosphorus index data spreadsheet needed for the plan.*

*The proposal calls for the development of an Emergency Response Plan (ERP) to outline actions to be taken by program participants in the event of a leak or spill of manure at the operation. These ERPs are not required to be submitted with the nutrient management plan but are to be available on site to be implemented if necessary. The nutrient management plan is required to include a verification that the ERP has been developed and is available on site.*

(29) Please list any special provisions which have been developed to meet the particular needs of

affected groups or persons including, but not limited to, minorities, elderly, small businesses, and farmers.

*Many of the special needs of the regulated community are incorporated into the regulations as a result of the participation of the Nutrient Management Advisory Board in developing the proposed revisions. The Board has met for over two years and has been helpful in expressing the needs of the regulated community and finding ways to address those needs through the regulations.*

*The revisions recognize the need for accommodating the variations in agricultural practices across the Commonwealth and addressing the various animal species raised within Pennsylvania. These revisions provide flexibility in addressing the various approaches to manure management. The regulations are being revised to specifically allow for inclusion of new technological approaches to addressing nutrient management concerns on the farm as these approaches are refined and found to be effective.*

*The revisions provide for a new approach to address phosphorus loss from farms. This approach is built around providing flexibility to the producer in their efforts to address areas with a high likelihood of phosphorus loss. This phosphorus loss analysis allows farmers to address these areas by possibly either revising their soil runoff control practices, manure application practices or fertilizer application practices in order to address these areas of phosphorus concern.*

*The farm community is well recognized for its difficulty in generating sufficient income within the business to afford the various environmental protection practices needed on their farms. The Commission is assisting the industry through financial assistance programs to support their plan writing and plan implementation efforts. The Commission is also looking to provide funding to support industries and technologies that can provide alternative manure markets or technologies to farmers to assist them with addressing local and regional nutrient imbalances found in certain parts of the state.*

(30) What is the anticipated effective date of the regulation; the date by which compliance with the regulation will be required; and the date by which any required permits, licenses or other approvals must be obtained?

*The effective date of the regulations is not able to be finalized at this time until the Commission is closer to developing the final version of the regulations. The Commission is anticipating the effective date of the regulations to follow soon after the publication of the final regulations.*

*The newly defined CAOs under this proposal are required to submit a plan within two years of the regulations becoming effective. They are required to implement the approved application rates as soon as those plans are approved, and they are required to construct any practices that may be called for in their plan, consistent with the approved implementation schedule in the nutrient management plan but not later than three years after approval of the plan.*

*The current CAOs are required to update their currently approved plans to incorporate the new criteria, within the three-year plan update schedule currently required in the regulations.*

*Newly proposed CAOs will be required to obtain nutrient management plan approval prior to commencement of the new operation. Operations planning to expand to become a CAO will be required to obtain nutrient management plan approval prior to the planned expansion.*

(31) Provide the schedule for continual review of the regulation.

*The Commission will continually assess this regulation and make revisions when needed to address any valid*

*technical or procedural concerns that may arise.*

CDL-1

# FACE SHEET
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Copy below is hereby approved as to form and legality. Attorney General

By: Amy M. Elliott
(Deputy Attorney General)

MAY 19 2004

DATE OF APPROVAL

☐ Check if applicable
Copy not approved. Objections attached.

Copy below is hereby certified to be true and correct copy of a document issued, prescribed or promulgated by:

DEPARTMENT OF ENVIRONMENTAL PROTECTION

(AGENCY)

DOCUMENT/FISCAL NOTE NO. 7-390

DATE OF ADOPTION: 9/9/03

BY Kathleen A McGinty

TITLE KATHLEEN A MCGINTY
CHAIRPERSON

EXECUTIVE OFFICER CHAIRMAN OR SECRETARY

Copy below is hereby approved as to form and legality Executive or Independent Agencies.

BY Daniel T. Clark

DATE OF APPROVAL
4/20/04
(Deputy General Counsel)
~~(Chief Counsel - Independent Agency)~~
(Strike inapplicable title)

☐ Check if applicable. No Attorney General Approval or objection within 30 days after submission.

## NOTICE OF PROPOSED RULEMAKING

## DEPARTMENT OF ENVIRONMENTAL PROTECTION
## STATE CONSERVATION COMMISSION

### Nutrient Management

### 25 *Pa. Code*, Chapter 83

# State Conservation Commission

[25 PA. CODE CH. 83]

Nutrient Management

The State Conservation Commission (Commission) proposes to promulgate revisions to the current regulations governing nutrient management by amending Chapter 83, Subchapter D (relating to nutrient management). These proposed revisions will amend the current regulations implementing provisions of the Nutrient Management Act (act) (3 P.S. §§ 1701-1719).

This proposal was adopted at the Commission's meeting of September 9, 2003.

## *A. Effective Date*

These proposed revisions to the regulations will go into effect upon publication in the *Pennsylvania Bulletin* as final rulemaking.

## *B. Contact Person*

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

## *C. Statutory Authority*

These proposed regulations are promulgated under the authority of sections 4(1) and 4(3) of the act (3 P.S. §§ 1704(1) and 1704(3)) which require the Commission to, 5 years after the effective date of the regulations, and periodically thereafter, promulgate regulations to make appropriate changes to the criteria used to define a concentrated animal operation, and to establish 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 carry out 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, DEP and the Department of Agriculture.

## *D. Background and Summary*

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

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

Nitrogen is identified in the act as the nutrient of primary concern, but it allows for the Commission to address other nutrients pursuant to specific criteria established by the Commission (3 P.S. § 1704(1)(i)). These revisions propose to add another nutrient – phosphorus - to be considered within the development of a nutrient management plan. That change, along with various provisions relating to the export of manure off of farms covered by these regulations, were two central issues with the current program identified to the Commission by the House Committee on Agriculture and Rural Affairs following public hearings in 2001.

The Commission is also required to provide education, technical assistance and financial assistance to the agricultural community regarding proper nutrient management. To date, the Commission has administered over $15,900,000 in financial assistance to farmers subject to the requirements of these regulations.

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

These proposed revisions to the regulations directly affect the concentrated animal operations (CAOs) that are required to plan under the act as well as agricultural operations that volunteer to meet the requirements under the act. In addition, the regulations will affect operations that agree to import manure from CAOs or volunteers, and others involved in that export such as commercial haulers and brokers.

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

Nutrient management plans 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 district for approval. Nutrient management planning responsibilities are set forth in detail in these proposed revisions to the regulations. Minimum standards for the construction, location, storage capacity and operation of animal manure storage facilities on agricultural operations that develop a plan under the act are included.

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

### *E. Summary of Proposed Revisions to the Regulations*

#### General

Clarifying and stylistic changes to the existing regulations are made throughout these revisions. Many changes are intended to comply with the Style Manual used by the Legislative Reference Bureau.

#### Section 83.201 – Definitions

New definitions have been included for the terms "conservation plan", "Erosion and Sedimentation Control Plan," "existing agricultural operation," "in-field stacking," "livestock," "manure group," "nutrient balance sheet," "phosphorus index," and "VAO." The definition of "CAO" has been revised to exclude operations having less than 8 animal equivalent units from the CAO category, regardless of animal density. The definition of "surface water" was revised to be consistent with the definition in other similar regulations implemented by the Commonwealth.

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

#### Section 83.202 – Scope

Language has been added to clarify the relationship between the criteria in these regulations, the DEP regulations under Chapter 92 for "concentrated animal feeding operations" (CAFOs) and those operations required by DEP to develop a plan to address a Clean Streams Law violation. The volunteer portion of this section of the regulations was streamlined through the definition of a VAO. Language has been revised to allow the Commission to better oversee manure storage facilities used on operations falling under the act.

**Section 83.204 – Applicability of requirements**

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

**Section 83.211 – Applicant eligibility (Plan Development Incentives Program)**

This section has been revised to change the eligibility date for operations to the effective date of the revised regulations. Language has been added to grant eligibility to those operations that do not produce manure but utilize manure on their operation. Language has been added to deny funding to those CAOs that are in violation of the provisions of the act. Language was added to allow the Commission to provide funding to an operator revising an existing approved nutrient management plan to meet the standards of the revised regulations.

**Section 83.213 – Application prioritization criteria (Plan Development Incentives Program)**

The provision to allow funding to only CAOs for a certain time frame has been eliminated from the regulations. A revised prioritization scheme has been proposed to give priority to operations newly classified as CAOs under the revised regulations, and to also provide priority to those operations with approved nutrient management plans that need to revise those plans to bring them into compliance with the proposed revisions to the regulations.

**Section 83.214 – Eligible costs (Plan Development Incentives Program)**

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

**Section 83.215 – Funding limitations (Plan Development Incentives Program)**

Language has been added to allow for a one-time reimbursement for a plan amendment to an already approved plan in order to bring that plan up to the standards of the proposed revisions to the regulations.

**Section 83.221 – Applicant eligibility (Financial Assistance)**

Language has been added to express that new operations are not eligible for funding under this program to install their nutrient management plan. The language has been revised to state that the owner of the operation will be responsible for repayment (if that

is necessary) unless the operator is specifically identified in the agreement to hold responsibility. Language has been added to deny financial assistance funding to those CAOs that are in violation of the provisions of the act, as well as denying funding to existing operations expanding to become a CAO after the effective date of the regulations.

**Section 83.222 – Condition for receipt of financial assistance (Financial Assistance)**

Language has been revised to change the eligibility date for operations applying for financial assistance to coincide with the effective date of the revised regulations.

**Section 83.224 – Project evaluation and prioritization criteria (Financial Assistance)**

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

**Section 83.225 – Application procedure (Financial Assistance)**

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

**Section 83.226 – Eligible Costs (Financial Assistance)**

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

**Section 83.229 – Grants (Financial Assistance)**

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

**Section 83.231 – Funding limitations (Financial Assistance)**

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

**Section 83.232 – Implementation and reporting (Financial Assistance)**

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

**Section 83.261 – General (Nutrient Management Plans)**

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

**Section 83.262 – Identification of CAOs (Nutrient Management Plans)**

Language has been revised to improve the readability of the calculation described in the regulations. Table A - the standard animal weights to be used in the CAO calculation - has been deleted from the regulations and is referenced through Agronomy Fact Sheet 54, published by Penn State. Language was added to establish a minimum threshold of 8 animal equivalent units for an operation to be considered a CAO.

**Section 83.272 – Content of plan (Content requirements of all plans)**

Language has been added to strengthen the link between the criteria in these regulations, the DEP CAFO program and those operations required by DEP to develop a plan in order to address a Clean Streams Law violation. Language has been deleted to better indicate which requirements apply to CAOs and which apply to others. The volunteer portion of this section of the regulations was streamlined through the definition of a VAO. Language was revised requiring a plan to contain the various plan sections as described in the regulations, as appropriate. Language was revised to strengthen the necessity of the farmer's involvement in the development of the plan. Language was revised requiring approval by the Commission or delegated conservation district for

nutrient management plan BMPs that are inconsistent with other plans such as a conservation plan.

**Section 83.281 – Identification of agricultural operations and acreage (Plan summary information for CAO plans)**

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

**Section 83.282 – Summary of plan (Plan summary information for CAO plans)**

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

**Section 83.291 – Determination of available nutrients (Nutrient application for CAO plans)**

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

**Section 83.292 – Determination of nutrients needed for crop production (Nutrient application for CAO plans)**

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

**Section 83.293 – Determination of nutrient application rates (Nutrient application for CAO plans)**

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

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

**Section 83.294 – Nutrient application procedures (Nutrient application for CAO plans)**

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

drinking water well to require a 100-foot radius setback, regardless of conditions or management.

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

**Section 83.301 – Excess manure utilization plans for CAOs (Alternative uses for excess manure for CAO plans)**

There have been significant revisions made to this section of the regulations to provide more detailed oversight of manure exported from CAOs. This was a significant issue in hearings conducted by the House Committee on Agriculture and Rural Affairs. Based on Commission records of 839 approved CAO plans, 28.3% of the manure generated on CAO farms is exported.

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

Revised language relating to when manure is exported through a broker includes a requirement for signed agreements with the brokers indicating that the broker is responsible for the proper handling and storage (if applicable) of the manure they accept. Language was also added to establish eligibility criteria for brokers similar to those for haulers and applicators, and to require the broker to develop nutrient balance sheets (or ensure there are approved nutrient management plans) for the importing sites.

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

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

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

**Section 83.311 – Manure management (Manure management for CAO plans)**

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

**Section 83.312 – Site specific emergency response plans (Site-specific emergency response plans)**

This section was added to require the development and implementation of a full-farm emergency response plan to address any possible accidental releases of manure to the environment. A copy of the emergency response plan is required to be kept on site and is not required to be submitted with the nutrient management plan. The nutrient management plan is to include a verification from the planner that this emergency response plan is developed and available at the operation. This section establishes that manure storage contingency plans (as required under §83.351) are required as an appendix to the emergency response plan.

**Section 83.321 – Stormwater control (Stormwater control for CAO plans)**

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

area language was moved from this section of the regulations to the manure management section (§83.311).

**Section 83.342 – Recordkeeping relating to application of nutrients (Recordkeeping and informational requirements for CAOs)**

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

**Section 83.343 – Alternative manure utilization recordkeeping (Recordkeeping and informational requirements for CAOs)**

The "Manure Transfer Sheet" has been renamed the "Manure Export Sheet." Language was added to clarify: who is to receive a copy of the Manure Export Sheet; what records are to be maintained when the exporter, or someone working for the exporter, applies the manure on importing sites; and what records brokers must maintain when they are involved in the export of the manure. Language relating to the submission of manure exporting records has been deleted from the regulations recognizing that the new Commission policy requires program staff to review these records at the operation at least once every year. The "Determination of nutrient content" item of this section has been deleted because of the revisions to section § 83.291 (Determination of available nutrients) which require manure tests to be done of all manure generated on a CAO.

**Section 83.344 – Exported manure information packets (Recordkeeping and informational requirements for CAOs)**

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

**Section 83.351 – Minimum standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities (Minimum standards for manure storage facilities on CAOs)**

Language was added to ensure that manure storage facilities built as part of an approved nutrient management plan are completed in compliance with DEP regulatory requirements in 25 Pa. Code §91.36. Language was added to ensure that manure storage facilities built on CAOs after October 1, 1997, were completed in compliance with the criteria set forth in these regulations at the time it was built. Language was added to require the submission of an engineer's verification at least 2 weeks prior to the construction of a new storage facility or repair of an existing facility, to ensure that the design and location of the facility is in compliance with applicable program standards.

**Section 83.361 – Initial plan review and approval (Plan review and implementation for CAOs)**

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

**Section 83.362 – Plan implementation (Plan review and implementation for CAOs)**

Language was added to clarify that the plan needs to be implemented consistent with the approved implementation schedule in the plan. Language was deleted relating to plan implementation extensions due to the lack of funding provided through the Commission, because the Commission provides several funding sources for plan implementation. Language was added to clarify that approved nutrient application rates are to be carried out upon approval of the plan. Language has been added to clarify conditions under which plan implementation can be extended past the 3-year limit.

**Section 83.371 – Plan amendments (Plan amendment and transfers for CAOs)**

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

**Section 83.381 – Manure management in emergency situations (Contagious disease emergencies on CAOs)**

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

**Section 83.391 – Identification of agricultural operations and acreage (Plan summary information for VAO plans)**

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

**Section 83.392 – Summary of plan (Plan summary information for VAO plans)**

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

**Section 83.401 – Determination of available nutrients (Nutrient application for VAO plans)**

Language was revised in item (a) to clarify that all the various nutrient sources generated or planned to be used on a VAO must be addressed through the plan. Language was revised to require that the plan include the nutrient content of each manure group generated on the operation as per a chemical analysis of the manure. Where it is not possible to test the manure prior to plan development, the revisions allow for the use of book values to determine nutrient content of the manure (from the Pennsylvania Agronomy Guide) or the use of manure analysis figures from a similar facility, and the revisions require the manure to be tested within one year of implementing the plan. Language has been added to: require manure tests to be taken annually for each manure group, detail what constituents are to be tested when analyzing manure, and to indicate that the Commission will specify manure testing procedures to be used. Language has been added to require actual manure production records to be used in the development of the plan, and if they are not available, a calculation is permitted to be used. The information used for calculating the manure generated figure must be included in the plan. The soil testing language was moved from this section of the regulations and has been placed in § 83.402.

**Section 83.402 – Determination of nutrients needed for crop production (Nutrient application for VAO plans)**

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

**Section 83.403 – Determination of nutrient application rates (Nutrient application for VAO plans)**

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

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

**Section 83.404 – Nutrient application procedures (Nutrient application for VAO plans)**

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

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

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

**Section 83.411 – Excess manure utilization plans (Alternative uses for excess manure for VAO plans)**

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

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

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

Language has been added relating to when manure is exported to known landowners for other than land application to require signed agreements with importers of the manure.

Language has been added relating to when manure is exported using an open marketing system to require operators following this scenario to meet certain qualification requirements, and to require them to complete nutrient balance sheets for importing sites unless the importing site has an approved nutrient management plan.

New language allows for an exception to these detailed exporting requirements if the importing site is to receive a minor amount of manure (as defined in the regulations) from the CAO. Language was added to require a 150-foot manure application setback from surface waters on importing sites, unless an approved nutrient management plan on the

importing site allows for manure to be applied in that area, and to require all other manure application setbacks established in the regulations to be applied to importing sites.

**Section 83.421 – Manure management (Manure management for VAO plans)**

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

**Section 83.422 – Site specific emergency response plans (Site-specific emergency response plans)**

This section was added to require the development and implementation of a full-farm emergency response plan to address any possible accidental releases of manure to the environment. A copy of the emergency response plan is required to be kept on site and is not required to be submitted with the nutrient management plan. The nutrient management plan is to include a verification from the planner that this emergency response plan is developed and available at the operation. This section establishes that manure storage contingency plans (as required under §83.461) are required as an appendix to the emergency response plan.

**Section 83.431 – Stormwater control (Stormwater control for VAO plans)**

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

**Section 83.452 – Recordkeeping relating to application of nutrients (Recordkeeping and informational requirements for VAOs)**

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

**Section 83.453 – Alternative manure utilization recordkeeping (Recordkeeping and informational requirements for VAOs)**

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

**Section 83.454 – Exported manure information packets (Recordkeeping and informational requirements for VAOs)**

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

**Section 83.461 – Minimum standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities (Minimum standards for manure storage facilities on VAOs)**

Language was added to ensure that manure storage facilities built as part of an approved nutrient management plan are completed in compliance with DEP regulatory requirements in 25 Pa. Code §91.36. Language was added to require the submission of an engineer's verification at least 2 weeks prior to the construction of a new storage facility or repair of an existing facility, to ensure that the design and location of the facility is in compliance with applicable program standards.

**Section 83.471 – Initial plan review and approval (Plan review and implementation for VAOs)**

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

**Section 83.472 – Plan implementation (Plan review and implementation for VAOs)**

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

**Section 83.481 – Plan amendments (Plan amendment and transfers for VAOs)**

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

**Section 83.491 – Manure management in emergency situations (Contagious disease emergencies on VAOs)**

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

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

***Benefits***

The intended result of the revised regulations is to strengthen the Commonwealth's current efforts to oversee CAO farms and those farmers voluntarily complying with established nutrient management regulations in order to further protect Pennsylvania's water quality. These revisions are necessary to address the Commission's expanded understanding of various program related issues brought to the Commission's attention through the study of recent research efforts relating to water quality protection, and over five years of experience working with this innovative regulatory initiative.

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

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

while minimizing possible negative impact on the regulated community. These revisions are key to ensuring that the Commonwealth has an effective program in addressing nutrient losses and allow our state program to meet the new federal Concentrated Animal Feeding Operations regulations recently imposed by EPA.

Pennsylvania has worked hard over the past five years to ensure that our nutrient management planning standards developed through the state's Nutrient Management Act can be used as the singular plan format to meet all nutrient management planning requirements, both federal and state. These proposed revisions are necessary to ensure we can continue to support our Nutrient Management Act plan format as that one format in Pennsylvania for all farmers required to plan. Farmers benefit from this coordination of effort and standards which these revisions will allow. Farmers also benefit from the many hours of work the Commission and the Nutrient Management Advisory Board have invested in developing a program which can advance our efforts in water quality protection, but do so in a way that is practical for the industry to meet.

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

*Costs*

These revisions will result in a cost increase for the development of plans required under the law. These cost increases are not easily quantified at this point but are expected to be in the range of approximately 50% over the current cost to develop a plan. The average cost over the past 18 months for developing a nutrient management plan meeting the current Pennsylvania regulations is $938.00. This increase will be especially true for those farms that have a significant number of farms importing manure from the planned farm. Farm operators can avoid consultant planning costs altogether by becoming individually certified to write their own nutrient management plans.

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

These revisions may require some farmers to begin exporting manure, or increase manure exports under the revised regulations as a result of the phosphorus indexing which may determine some lands as not suitable for manure applications because of a high likelihood of phosphorus applied to those areas reaching surface water. The impact of such a requirement is difficult at best to quantify at this time because exporting the manure may result in increased operational costs for the producer, or the exporting of manure may not impose any increased costs on the producer due to their ability to market the manure. There are operations from which the exported manure serves as an additional revenue source for the farm due to its marketable qualities.

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

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

There will be increased program expenses necessary to carry out these revisions to the regulations. The delegated conservation districts will have an increased workload in the review of the expanded scope of the plans called for under these revisions. Also due to these revisions, we can expect more farmers to fall within the CAO designation and conservation districts will have more farms to oversee at the local level. Current funding level support to conservation districts is $1.78 million a year, funding needs for the conservation districts to administer the program under the revised regulations is expected to be $2.5 million.

The Commission is planning to offer increased financial assistance to farmers to help offset the expected increased planning costs. This will be done through the

successful Plan Development Incentives Program (PDIP) as afforded through these regulations. Also the Commission is expecting to continue its Nutrient Management Plan Implementation Grants Program to assist farmers in installing BMPs needed to implement their approved plans. An expanded element of this assistance to farmers is likely to be the Commission's initiative to fund technological advances on farm sites, or combinations of farm sites, to assist farmers in installing practices to further process manure for those farmers challenged to find conventional application sites for their manure.

Overall, the Commission and the Nutrient Management Advisory Board have been very deliberate in the development of additional program requirements in these revisions to ensure that the additional steps afforded through these revisions are necessary and reasonable for the agricultural community to afford and implement. These revisions are necessary steps for the Commission to take to ensure water quality is protected, and they are developed to ensure the maximum benefit with minimum expense to the regulated community and public sector.

***Paperwork Requirements***

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

***G. Sunset Review***

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

***H. Regulatory Review***

Under Section 5(a) of the Regulatory Review Act, (71 P.S. § 745.5(a)), the Commission submitted a copy of these proposed regulatory revisions on July 28, 2004, to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the

House Agriculture and Rural Affairs Committee and the Senate Agriculture and Rural Affairs Committee. In addition to submitting the proposed regulatory revisions, the Commission has provided IRRC and the Committees with a copy of a detailed regulatory analysis form. A copy of this material is available to the public upon request.

If IRRC has any objections to any portion of the proposed regulatory revisions, it will notify the Commission within 30 days after close of the public comment period. The notification shall specify the regulatory review criteria which have not been met by that portion. The Regulatory Review Act specifies detailed procedures for review, prior to final publication of the regulations, by the Commission, the General Assembly and the Governor of objections raised.

## *I. Public Comment*

*Written comments* – Interested persons are invited to submit comments, suggestions or objections regarding the proposed regulatory revisions to the State Conservation Commission, Agriculture Building, Room 405, 2301 North Cameron Street, Harrisburg, PA 17110. Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Commission within 90 days of publication in the *Pennsylvania Bulletin*. Interested persons may also submit a summary of their comments to the Commission. The summary may not exceed one page in length and must also be received within 90 days following publication in the *Pennsylvania Bulletin*. The one-page summary will be provided to each member of the Commission in the agenda packet distributed prior to the meeting at which the final regulations will be considered.

*Electronic Comments* – Comments may be submitted electronically to the Commission at *ag-scc@state.pa.us*. A subject heading of the proposal must be included in each transmission. Comments submitted electronically must also be received by the Commission within 90 days following publication of this proposal.

## J. Public Meetings and Hearings

The Commission will hold two public informational meetings on this proposal on September 13, 2004 at the Holiday Inn, 5401 Carlisle Pike, Mechanicsburg and on September 16 at the Ramada Inn, 191 United Road, Dubois. These meetings will be held from 6:00 p.m. to 9:00 p.m. and will include time for questions from the audience.

The Commission will hold two public hearings for the purpose of accepting comments on this proposal on October 13, 2004 at the Holiday Inn, 5401 Carlisle Pike, Mechanicsburg and October 14 the Ramada Inn, 191 United Road, Dubois. These hearings will begin at 6:00 pm.

Persons wishing to present testimony at a public hearing are requested to contact Douglas Goodlander at the State Conservation Commission, Agriculture Building, Room 405, 2301 North Cameron Street, Harrisburg, PA 17110, (717) 787-8821, at least one

week in advance of the hearing to reserve a time to present testimony. Oral testimony is limited to 5 minutes for each witness. Witnesses are requested to submit three written copies of their oral testimony to the hearing chairperson at the hearing. Organizations are limited to designating one witness to present testimony on their behalf at each hearing.

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

# Annex A
# 25 Pa. Code, Chapter 83
# Subchapter D. NUTRIENT MANAGEMENT

## GENERAL PROVISIONS

Sec.



## PLAN DEVELOPMENT INCENTIVES PROGRAM

## FINANCIAL ASSISTANCE



## DELEGATION TO LOCAL AGENCIES



## COMPLIANCE PLANS

## NUTRIENT MANAGEMENT PLANS



## CONTENT REQUIREMENTS FOR ALL PLANS



## PLAN SUMMARY INFORMATION FOR CAO PLANS



## NUTRIENT APPLICATION FOR CAO PLANS



## ALTERNATIVE USES FOR EXCESS MANURE FOR CAO PLANS



## MANURE MANAGEMENT FOR CAO PLANS

**STORMWATER [RUNOFF] CONTROL FOR CAO PLANS**



**IMPLEMENTATION SCHEDULE FOR CAO PLANS**



**RECORDKEEPING AND INFORMATIONAL REQUIREMENTS FOR CAOs**



**MINIMUM STANDARDS FOR MANURE STORAGE FACILITIES FOR CAOs**



**PLAN REVIEW AND IMPLEMENTATION FOR CAOs**

**PLAN AMENDMENTS AND TRANSFERS FOR CAOs**



**CONTAGIOUS DISEASE EMERGENCIES ON CAOs**



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



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



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

**MANURE MANAGEMENT FOR [VOLUNTEER OR FINANCIAL ASSISTANCE] VAO PLANS**

83.421. Manure management.

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

**STORMWATER [RUNOFF] CONTROL FOR [VOLUNTEER OR FINANCIAL ASSISTANCE] VAO PLANS**

83.431. Stormwater **[runoff]** control.

**IMPLEMENTATION SCHEDULE FOR [VOLUNTEER OR FINANCIAL ASSISTANCE] VAO PLANS**

83.441. Implementation schedule.

**RECORDKEEPING AND INFORMATIONAL REQUIREMENTS FOR [VOLUNTEERS] VAOs**

83.451. General recordkeeping requirements.

83.452. Recordkeeping relating to application of nutrients.

83.453. Alternative manure utilization recordkeeping.

**83.454 Exported manure information packets.**

## MINIMUM STANDARDS FOR MANURE STORAGE FACILITIES ON [VOLUNTEER OR FINANCIAL ASSISTANCE OPERATIONS] VAOs

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

## PLAN REVIEW AND IMPLEMENTATION FOR [VOLUNTEERS OR FINANCIAL ASSISTANCE RECIPIENTS] VAOs

83.471. Initial plan review and approval.

83.472. Plan implementation.

## PLAN AMENDMENTS AND TRANSFERS FOR [VOLUNTEERS OR FINANCIAL ASSISTANCE RECIPIENTS] VAOs

83.481. Plan amendments.

83.482. Amendments due to unforeseen circumstances.

83.483. Plan transfers.

## CONTAGIOUS DISEASE EMERGENCIES ON [VOLUNTEER OR FINANCIAL ASSISTANCE OPERATIONS] VAOs

83.491. Manure management in emergency situations.

## 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 **with eight or more animal equivalent units** 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]** **[n]**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.

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

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

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

*Cooperative Extension*—The Penn State Cooperative Extension.

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

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

***Department*—The Pennsylvania Department of Environmental Protection.**

***Erosion and Sediment Control Plan*** – **A site-specific plan identifying BMPs to minimize accelerated erosion and sedimentation. An Erosion and Sediment Control Plan under 25, Pa. Code, Chapter 102, required for plowing and tilling activities, may be that portion of a Conservation Plan identifying BMPs to minimize erosion and sedimentation.**

*Existing agricultural operation* – **For the sole purpose of determining the eligibility for the Nutrient Management Plan Implementation Grants Program established under the act, an existing operation is an agricultural operation producing crops, livestock or poultry as of [effective date of the of the regulations], where the focus of the operation has not changed since [effective date of the of the regulations]. A change in focus includes a significant increase in the scope or magnitude of the operation as well as the inclusion of a new livestock type on the operation.**

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

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

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

*Livestock* –**Animals raised, stabled, fed or maintained on an agricultural operation with the purpose of generating income or providing work, recreation or transportation. Examples include: dairy cows, beef cattle, goats, sheep, swine, and horses. The term does not include aquatic species.**

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

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

*Manure storage facility*—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]** **biosolids** or combinations thereof.

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

*Nutrient management specialist—**specialist--*** A person satisfying the requirements of the Department of Agriculture's Nutrient Management Certification Program in 7 Pa. Code §§ 130b.1—130b.51 (relating to nutrient management certification).

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

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

Pennsylvania conditions.

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

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

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

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

*Plan—nutrient management plan*—A written site-specific plan which **[incorporates BMPs to manage the use of plant nutrients] meets the requirements** in sections 4 and 6 of the act (3 P. S. §§ 1704 and 1706), and in §§ 83.271, 83.272 and 83.281—83.331 for CAOs **[or] and** §§ 83.271, 83.272 and 83.391—83.441 for **[nonCAOs planning under the act] VAOs. The term includes plan amendments required under §§ 83.371-372 and §§ 83.481-482.**

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

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

*Surface water***[and groundwater]—[All rivers, streams, creeks, rivulets, impoundments, ditches, water courses, storm sewers, lakes, dammed water, ponds, springs and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this Commonwealth.] Perennial and intermittent streams, rivers, lakes, reservoirs, ponds, wetlands, springs, natural seeps and estuaries, excluding water at facilities approved for wastewater treatment such as wastewater treatment impoundments, cooling water ponds and constructed wetlands used as part of a wastewater treatment process.**

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

***Voluntary agricultural operation--VAO*--Any operation not specifically required under the act or these regulations to submit and implement a nutrient management plan meeting the criteria established in this Subchapter. This includes agricultural operations applying for financial assistance under the act .**

**§ 83.202. Scope.**

This subchapter specifies minimum criteria and requirements for:

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

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

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

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

**[(5)]** **(3)** The construction, location, **design, installation** **[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]** **on agricultural operations subject to the act.**

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

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

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

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

**§ 83.205. Preemption of local ordinances.**

(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 **to** the construction, location or operation of

facilities used for storage of animal manure or nutrients or practices otherwise regulated by the act or this subchapter if the municipal ordinance is in conflict with the requirements of the act and this subchapter.

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

(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 a]**Agricultural operations that were producing **crops,** livestock or poultry as of **[October 1, 1997][effective date of the regulations],** **and are or will be producing or utilizing livestock or poultry manure or both on their operation,** are eligible to receive funding under this program.

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

**(d) Agricultural operations having an approved plan prior to [effective date of the regulations] that are in compliance with that plan and the act are eligible to receive funding to amend the plan in order to meet the requirements of this revised Subchapter.**

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

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

**(2) CAOs amending a plan approved prior to [effective date of the regulations] in order to conform with the revised program criteria.**

**[(1)]** (3) CAOs coming into existence after **[October 1, 1997] [the effective date of the regulations]**, due to loss of rented acres.

**[(2)]** (4) **[Non-CAOs volunteering to comply with the act] VAOs amending a plan approved prior to [effective date of the regulations] in order to conform with the revised program criteria.**

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

**[(4)]** (6) Other CAOs coming into existence after **[October 1, 1997] [effective date of the regulations]**.

**§ 83.214. Eligible costs.**

(a) Eligible costs considered by the Commission are those fees incurred for the development of the **initial** plan **or the amendment of a plan approved prior to [effective date of the regulations] in order to conform with the revised program criteria**.

(b) **[Only those]** **Costs of** soil and manure tests **(not including labor costs)** **[costs included in the service fee charged]** for **initial** plan development, **or for developing the amended plan as described in paragraph (a),** 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 **initial** plan development costs incurred after the operator's application has been approved**, and as a one-time reimbursement payment for a plan amendment of a plan approved prior to [effective date of the regulations] in order to conform with the revised program criteria**.

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

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

**(c) New agricultural operations coming into existence after [effective date of the regulations] are not eligible for financial assistance for the implementation of their approved plan.**

**[(b)]** (d) If the applicant is a lessee or operator, the applicant shall apply jointly with the owner of the agricultural operation for financial assistance. The **[lessee or operator and]** owner shall

be **[jointly]** responsible for the repayment of financial assistance **unless the agreement establishes the lessee or operator as having joint or principal responsibility**.

**(e) CAOs that were in violation of the plan submission requirements of this act prior to [effective date of the regulations] or are in violation of any other provision of the act, are not eligible for funding under this program.**

**(f) Existing agricultural operations expanding to become a CAO after [effective date of the regulations] are not eligible for financial assistance for the implementation of their approved plan.**

**§ 83.222. Condition for receipt of financial assistance.**

An agricultural operation approved to receive financial assistance under the Chesapeake Bay Nonpoint Source Pollution Abatement Program after **[October 1, 1997] [effective date of the regulations]**, 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 **compliance with the act and properly implementing a plan approved prior to [effective date of the regulations] which, due to the revisions to the regulations, are required to implement additional practices to meet the new criteria [existence on October 1, 1997, complying with the act and this subchapter].**

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

**[(2)] (3)** CAOs coming into existence after **[October 1, 1997] [effective date of the regulations]**, due to loss of rented acres.

**[(3)] (4) VAOs having an approved plan as of [effective date of the regulations].**

**[(4)] (5) Other [non-CAOs] VAOs** with critical BMPs.

**[(5)] (6)** 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]** **copy** 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]** **60** days of receipt of all required information, applicants will be notified in writing of actions taken on their applications and **[their]** **any** right to appeal the actions.

(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.

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

**§ 83.227. 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]** **any local, state, federal or other financial assistance program** **[is]** **may also be** eligible for grants under the Nutrient Management **[Financial Assistance]** **Plan**

**Implementation Grant** Program up to the grant limit established by the Commission in grants from **those** combined sources **[of the Chesapeake Bay Program]** and the Nutrient Management **[Financial Assistance] Plan Implementation Grant** Program.

(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 **immediate** plan implementation is required to proceed before an application for financial assistance can be submitted to the Commission. **Circumstances that would require immediate plan implementation and therefore appropriate for consideration by the Commission for a letter of no prejudice, shall relate to acute failures or malfunctions of practices where immediate implementation is necessary to address significant environmental degradation.** In this case, a potential applicant may apply to the Commission for a letter of no prejudice wherein the Commission agrees to consider a future application for financial assistance without limitation or prejudice even if project construction has begun at that time. If the Commission issues a letter of no prejudice, project construction can begin without jeopardizing or benefiting a future application.

**§ 83.232. Implementation and reporting.**

(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]** **9** months **[after]** **of the Commission**

**sending notice of** approval **of a grant application [by the Commission].** If the applicant does not begin implementation within the specified time period, **does not [and]** continue work without unreasonable interruption, **or does not complete the project within the specified time period in the grant agreement,** the financial assistance may be withdrawn by the Commission.

(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 disbursal 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]** **will**:

(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.**

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

**[(a)] (1) [A CAO in existence on October 1, 1997, shall submit to the Commission or a delegated conservation district, a plan by October 1, 1998.]** ***Operations defined as a CAO prior to [effective date of the regulations].***

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

**ii. For operations which were newly defined as a CAO due to expansion of operations prior to [effective date of the regulations], a plan shall have been submitted within 3 months of the change in operations which classified them as a CAO.**

**iii. For new operations defined as CAOs and commencing before [effective date of regulations] a plan shall have been submitted prior to commencement of operations.**

**[(b)] (2) [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.]** ***Operations defined as a CAO after [effective date of the regulations] who were not defined as CAOs prior to that date.***

**An existing agricultural operation as of [effective date of the regulations] which did not meet the CAO definition prior to [effective date of the regulations] but which is defined as a CAO under this Subchapter as amended, shall submit a plan by [effective date of the regulations plus two years].**

**[(c)] (3) [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]** ***Operations that become defined as CAOs after [effective date of the regulations] due to expansion of an existing operation or loss of rented or leased land.*** **Existing operations that make changes to their operations that result in becoming defined as CAOs for the first time, after [effective date of the regulations], shall meet the following:**

**(i) An agricultural operation which becomes a CAO after [effective date of the regulations] due to loss of land suitable for manure application, shall submit a plan within 6 months after the date which the operation becomes a CAO.**

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

**[(d)] (4) [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]** ***New Operations.*** **A new operation which will commence after [effective date of the regulations], and which will be a CAO, shall obtain approval of a plan meeting the requirements of this Subchapter prior to the commencement of the operation.**

**[(e)] (5)** ***Revision of plans approved prior to [effective date of the regulations].*** **All operations (CAOs and VAOs) having an approved plan prior to [effective date of the regulations] shall comply with the following:**

**(i) CAOs shall submit an amended plan to incorporate the requirements included in this amended Subchapter pursuant to the 3 year review requirement of §83.362, or by [effective date of the regulation plus one year], whichever is later.**

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

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

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

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

**§ 83.262. Identification of CAOs.**

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

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

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

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

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

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

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

**[Table A**

| *Type of Animal* | *Standard Weight in Pounds During Production (Range)* |
|---|---|
| *Swine* | |
| **Nursery Pig** | **30 (15—45)** |
| **Finishing Pig** | **145 (45—245)** |
| **Gestating Sow** | **400** |
| **Sow and Litter** | **470** |
| **Boar** | **450** |
| *Beef* | |
| **Calf 0—8 Mo.** | **300 (100—500)** |
| **Finishing 8—24 Mo.** | **850 (500—1,200)** |

| | |
|---|---|
| **Cow** | **1,150** |
| ***Veal*** | |
| **Calf 0—16 Wk.** | **250 (100—400)** |
| ***Poultry*** | |
| **Layer 18—65 Wk.** | **3.25 (2.75—3.76)** |
| **Layer 18—105 Wk.** | **3.48 weighted avg.** |
| **Layer Brown Egg 20—65 Wk.** | **4.3 (3.6—5)** |
| **Layer Brown Egg 20—105 Wk.** | **4.63 weighted avg.** |
| **Pullets 0—18 Wk.** | **1.42 (0.08—2.75)** |
| **Broiler, Lg. 0—57 Days** | **3.0 (0.09—5.9)** |
| **Broiler, Med. 0—43 Days** | **2.3 (0.09—4.5)** |
| ***Roaster*** | |
| **Male 0—8 Wk.** | **3.54 (0.09—7)** |
| **Female 0—10 Wk.** | **3.54 (0.09—7)** |
| **Turkey, Tom 0—18 Wk.** | **14.1 (0.12—28)** |
| **Turkey, Hen 0—14 Wk.** | **7.1 (0.12—14)** |
| **Duck 0—43 Days** | **3.56 (0.11—7)** |
| | |
| **Guinea 0—14 to 24 Wk.** | **1.9 (0.06—3.75)** |
| ***Pheasant*** | |
| **0—13 to 43 Wk.** | **1.53 (0.05—3)** |
| ***Chukar*** | |

| | |
|---|---|
| **0—13 to 43 Wk.** | **0.52 (0.04—1)** |
| ***Quail*** | |
| **0—13 to 43 Wk.** | **0.26 (0.02—0.5)** |
| ***Dairy*** | |
| **Holstein/Brown Swiss** | |
| **Cow** | **1,300** |
| **Heifer 1—2 Yr.** | **900 (650—1,150)** |
| **Calf 0—1 Yr.** | **375 (100—650)** |
| **Bull** | **1,500** |
| **Ayrshire/Guernsey** | |
| **Cow** | **1,100** |
| **Heifer 1—2 Yr.** | **800 (575—1,025)** |
| **Calf 0—1 Yr.** | **338 (100—575)** |
| **Bull** | **1,250** |
| ***Jersey*** | |
| **Cow** | **900** |
| **Heifer 1—2 Yr.** | **600 (400—800)** |
| **Calf 0—1 Yr.** | **225 (50—400)** |
| **Bull** | **1,000** |
| ***Sheep*** | |
| **Lamb 0—26 Wk.** | **50 (10—90)** |
| **Ewe** | **150** |

| | |
|---|---|
| **Ram** | **185** |
| ***Goat*** | |
| **Kid 0—10 Mo.** | **45 (5—85)** |
| **Doe** | **125** |
| **Buck** | **170** |
| ***Horse*** | |
| **Foal 0—6 Mo.** | **325 (125—625)** |
| **Yearling** | **750 (625—875)** |
| **Nondraft Breeds, Mature** | **1,000** |
| **Draft Breeds, Mature** | **1,700 ]** |

(2) **Compute** **[T]**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, f]**For the sole purpose of determining whether an agricultural operation is a CAO, **"land suitable for the application of manure"** is **considered to be** land **[in] under** the management control of the operator, that meets the following criteria:

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

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

(ii) The term "land suitable **for application of manure**" 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] two** acres. There are **[3] three** acres of woodlands and **[7] seven** acres of cropland. The following is the AEU per acre calculation for this operation:

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

Step 2. 23,000 lb. total weight x 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 **or other agricultural operations required by the Commission or the Department to plan under the act** shall **[at a minimum,]** comply with § § 83.261 and 83.271—83.331.

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

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

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

## PLAN SUMMARY INFORMATION FOR CAO PLANS

**§ 83.281. Identification of agricultural operations and acreage.**

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

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

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

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

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

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

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

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

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

**[(3)]** (4) The counties where land included in the plan is located.

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

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

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

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

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

**[(7)]** **(8)** The number of AEUs per acre on the agricultural operation.

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

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

(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]** **will** be sufficient to satisfy this

requirement. These soil survey maps may be available at the county NRCS office or conservation district office.

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

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

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

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

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

**§ 83.282. Summary of plan.**

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

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

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

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

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

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

**(i) Acres.**

**(ii) Expected yield.**

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

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

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

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

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

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

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

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

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

## NUTRIENT APPLICATION FOR CAO PLANS

**§ 83.291. Determination of available nutrients.**

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

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

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

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

(3) Nutrient content of manure:

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

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

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

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

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

**[(1)]** (c) If after the first 3 years of implementing the plan, the yields do not average at least 80% of the planned expected yield, the plan shall be amended to be consistent with the documented yield levels unless sufficient justification for the use of the higher yields is **[provided in writing to]** **approved by** the Commission or delegated conservation district. **The amendment shall be submitted as required under §§ 83.361 – 83.371.**

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

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

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

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

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

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

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

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

**§ 83.293. Determination of nutrient application rates.**

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

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

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

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

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

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

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

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

**§ 83.294. Nutrient application procedures.**

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

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

**[(2)]** (b) Intended target spreading periods for the application of manure shall be included in the plan.

**[(3)]** (c) **Manure** **[A]**application rates and procedures shall be consistent with the capabilities, including capacity and calibration range, of available application equipment. **For existing operations and any operation using a commercial manure applicator, the plan shall include**

**the capacity and practical application rates, based on calibration of the existing equipment. For proposed operations not using a commercial custom manure applicator, or where this calibration is not feasible at planning time, the operator shall perform this application equipment calibration analysis prior to the first application of manure, or within 1 year of the facility beginning operation, whichever is sooner, and this information shall be included in any necessary amendments to the plan.**

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

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

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

(ii) the **combination of**

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

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

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

**(e) If liquid or semi-solid manure is planned to be applied at rates greater than 9,000 gallons per acre at any one application time, the rates and amounts shall be limited based on the infiltration rate and water holding capacity of the application areas as described in § 83.294(c). In these instances the plan shall include the computations for the infiltration rates and water holding capacity of the various application areas, and these applications shall not be allowed to exceed either the determined infiltration rate or the water holding capacity of the application sites.**

**[(5)]** (f) Manure **[may]** shall 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 inactive open drinking water well, where surface water flow is toward the water well, unless the manure is mechanically incorporated within 24 hours of application.**

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

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

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

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

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

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

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

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

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

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

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

**(i) If a commercial manure applicator will be used for the application of the manure on the agricultural operation, the commercial applicator shall meet the requirements of § 83.301(a)(5).**

## ALTERNATIVE USES FOR EXCESS MANURE FOR CAO PLANS

**§ 83.301. Excess manure utilization plans for CAOs.**

(a) **[When]** **If** manure will be exported **for use off the CAO at** **[to]** known **[landowners]** **agricultural operations** **[or operators]** for agricultural land application, the **[plan shall list]** **following shall apply**:

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

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

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

(4) **[The estimated amount of manure that could be exported to each agricultural operation.]** **The plan shall include copies of nutrient balance sheets applicable to each crop management unit where the exported manure will be applied. These nutrient balance**

**sheets for importing operations shall include a map identifying the areas where the imported manure will be applied and applicable manure application setbacks relevant to the site, including those identified in § 83.294 (relating to nutrient application procedures). Nutrient management plans implemented at the importing operations may be used to meet this requirement if they are attached to the plan.**

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

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

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

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

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

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

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

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

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

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

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

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

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

(3) **[The intended season for the manure transfer.]** **If the manure accepted by a broker will be applied to agricultural operations for crop production, the broker shall be responsible for the development of nutrient balance sheets for all crop management units**

**where the manure will be applied. All such nutrient balance sheets shall be retained by the broker and provided by the broker to the importing operation, for retention on the importing operation. Instead of developing nutrient balance sheets, the broker can ensure that an approved nutrient management plan exists for the importing sites.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## MANURE MANAGEMENT FOR CAO PLANS

**§ 83.311. Manure management**

(a) In the preparation of a plan, the nutrient management specialist **[, or specialist in conjunction with other individuals with nutrient runoff control expertise such as NRCS or**

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

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

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

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

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

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

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

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

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

**(e) Animal concentration areas shall be sized, located, implemented, and managed to eliminate the direct discharge of polluted storm water from these areas to surface water**

**and groundwater, as described in the *Manure Management Manual* and the *Pennsylvania Technical Guide*, including the following requirements which shall be addressed in the plan:**

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

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

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

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

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

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

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

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

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

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

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

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

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

**[(d)]** **(g)** 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)]** **(h)** Information contained in other sections of the plan may be used by the specialist when addressing this section.

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

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

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

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

**or create a danger of pollution to surface water or groundwater contained in § 91.33 (relating to incidents causing or threatening pollution)**

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

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

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

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

## STORMWATER [RUNOFF] CONTROL FOR CAO PLANS

**§ 83.321. Stormwater [runoff] control**

**[(a) [Field runoff control]**

**[1]** (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 **[runoff]**

**stormwater** control practices on **[fields,]** croplands**, haylands** and pastures included in the plan **to prevent surface and groundwater pollution. The specialist may confer with NRCS, conservation district staff or others with expertise with nutrient runoff** control. This review shall be included in the plan and shall identify **[those]** critical runoff problem areas **[where nutrients directly discharge into surface water or groundwater]**.

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

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

**[(4)](d)** BMPs listed in the plan to address critical runoff problem areas shall be **selected,** designed, installed, operated and maintained in accordance with the **practices and** standards contained in the ***Manure Management Manual* and the** *Pennsylvania Technical Guide.*

**[(5)](e) The plan shall include a verification from the specialist developing the plan, indicating that a current Erosion and Sediment Control Plan, meeting the requirements of Chapter 102 (relating to erosion and sediment control), exists for all plowed or tilled**

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

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

(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 SCHEDULE[S] 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]** (relating to alternative manure utilization recordkeeping) **and § 83.344 (relating to exported manure information packets)**.

(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 § 83.292(e)[1(e)] (relating to determination of [available] nutrients needed for crop production). Soil testing is required once every 3 years for each crop management unit.

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

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

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

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

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

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

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

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

**§ 83.343. Alternative manure utilization recordkeeping.**

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

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

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

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

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

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

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

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

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

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

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

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

**(f) *Determination of nutrient content.* During the implementation of the plan, operators of CAOs exporting manure will be required to determine the nutrient content of the manure**

**by using accepted manure sampling and chemical analysis methods as outlined in the *Manure Management Manual* or the *Pennsylvania Agronomy Guide*.]**

**§ 83.344. Exported manure informational packets.**

(a) **[When]** **If** manure is exported from a CAO, the exporter will provide the importer **and any relevant manure hauler/applicators or brokers** with a completed **[M]**manure **[Transfer]** **export [S]**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)]**(1) The applicable sections of the *Manure Management Manual*.

**[(3)]**(2) A concise educational publication describing the key concepts of nutrient management.

**[(4)]**(3) Additional informational items as supplied by the Commission for this purpose.

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

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

## MINIMUM STANDARDS FOR MANURE STORAGE FACILITIES ON CAOS

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

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

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

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

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

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

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

**[(iv)]** **(v)** 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]** **if a facility** (except permanent stacking and compost facilities) **[are]** **is** located on slopes exceeding 8% or **a facility has** **[have]** a capacity of 1.5 million gallons or greater.

(G) Within 200 feet of a property line, **[where these facilities]** **if a facility** (except permanent stacking and compost facilities) **[are]** **is** located on slopes exceeding 8%**[,where]** **and**

**if** the slope is toward the property line, or **a facility has [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)] (vi)** 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] if a facility** (except permanent stacking and compost facilities) **[are] is** located on slopes exceeding 8% or **[have] has** a capacity of 1.5 million gallons or greater.

(G) Within 300 feet of a property line, **[where these facilities] if a facility** (except permanent stacking and compost facilities) **[are] is** located on slopes exceeding 8%, **[where] and if** the slope is toward the property line, or **a facility has [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)]** **(vii)** The Commission or a delegated conservation district may waive the distance restrictions in subparagraphs **[(iv)]** **(v)**(A), (B) and **(F)[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)]** **(v)** 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.

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

(3) The designer of the manure storage facility **[required by]** **described in** 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 ***Manure Management Manual*** **and the** *Pennsylvania Technical Guide.*

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

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

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

(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]** **plan or plan amendment,** and **shall** include an explanation specifically stating the reasons for **[modification or]** disapproval. The Commission or a delegated conservation district will, within 10 days from the date of receipt of the plan or plan amendment, provide notice to the operator indicating **whether all of the required plan elements have been received** **[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]** **plan or plan amendment** if the Commission or a delegated conservation district fails to act within 90 days of submittal**, beginning on the date of receipt of the complete plan or plan amendment by the Commission or delegated conservation district**. When the Commission or a delegated conservation district fails to act within 90 days of plan submission, and the plan or plan amendment is resubmitted and the delegated conservation district or Commission again fails to act within 90 days of resubmittal, it shall be deemed approved.

**§ 83.362. Plan implementation.**

(a) A CAO shall fully implement the plan **consistent with the implementation schedule included as part of the approved plan. Implementation schedules shall not extend past [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 **the implementation schedule is** extended upon approval of the Commission **or delegated conservation district. [for cause shown or a plan amendment § 83.371 (relating to plan amendments). The 3-year implementation schedule shall be extended an additional 2 years for individual substantial capital improvements required under an approved plan for an operation required to submit a plan under § 83.261(a) (relating to general) if the following occur:**

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

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

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

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

## PLAN AMENDMENTS AND TRANFERS FOR CAOS

**§ 83.371. Plan amendments.**

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

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

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

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

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

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

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

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

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

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

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

## CONTAGIOUS DISEASE EMERGENCIES ON CAOS

**§ 83.381. Manure management in emergency situations.**

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

(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]** **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 under § 83.311 (relating to manure management).

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

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

**PLAN SUMMARY INFORMATION FOR**

**[VOLUNTEER OR FINANCIAL ASSISTANCE] VAO PLANS**

**§ 83.391. Identification of agricultural operations and acreage.**

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

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

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

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

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

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

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

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

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

**[(3)] (4)** The counties where land included in the plan is located.

**[(4)] (5)** The watersheds **in which the [of]** land included in the plan **is located**. The existence of any special protection waters, as identified in **Chapter 93 [§ 93.9]** (relating to

**[designated water uses and water quality criteria]** **water quality standards)**, shall also be noted.

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

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

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

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

**[(7)]** **(8)** The number of AEUs per acre on the agricultural operation.

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

(b) ***Maps and aerial photographs.*** The plan shall **include a topographic map drawn to scale identifying the lands included in the agrocultural operation, and shall also** 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]** **will** be sufficient to satisfy this requirement. These soil survey maps may be available at the county NRCS office or conservation district office.

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

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

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

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

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

**§ 83.392. Summary of plan.**

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

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

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

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

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

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

**(i) Acres.**

**(ii) Expected yield.**

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

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

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

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

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

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

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

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

**(b) The summary shall reference [M]**manure management and storage practices, stormwater runoff control practices and other appropriate BMPs necessary to protect the quality of surface

water and groundwater **[may be referenced in the summary, but shall be covered by the appropriate section of the plan].**

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

**§ 83.401. Determination of available nutrients.**

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

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

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

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

determining the total volume of manure **[to be applied] generated. The plan shall include the calculations or variables used for determining the amount of manure produced on the operation.**

**(3) Nutrient content of manure:**

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

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

**operation shall be obtained within 1 year of implementation of the approved plan, and the requirements of § 83.481 (relating to plan amendments) shall be followed as applicable.**

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

(c) The nitrogen available from manure shall be based on the appropriate availability factors such as those contained in the **[Manure Management Manual or the]** *Pennsylvania Agronomy Guide*. **The plan shall include [T]**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, are not required to be submitted with the plan, but shall be kept on record at the operation.]**

**§ 83.402. Determination of nutrients needed for crop production.**

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

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

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

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

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

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

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

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

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

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

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

**§ 83.403. Determination of nutrient application rates.**

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

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

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

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

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

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

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

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

**§ 83.404. Nutrient application procedures.**

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

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

**[(2)]** (b) Intended target spreading periods for the application of manure shall be included in the plan.

**[(3)]** (c) **Manure [A]**application rates and procedures shall be consistent with the capabilities, including capacity and calibration range, of available application equipment. **For existing operations and any operation using a commercial manure applicator, the plan shall include**

**the capacity and practical application rates, based on calibration of the existing equipment. For proposed operations not using a commercial custom manure applicator, or where this calibration is not feasible at planning time, the operator shall perform this application equipment calibration analysis prior to the first application of manure, or within 1 year of the facility beginning operation, whichever is sooner, and this information shall be included in any necessary amendments to the plan.**

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

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

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

**(ii)** the **combination of**

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

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

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

**(e) If liquid or semi-solid manure is planned to be applied at rates greater than 9,000 gallons per acre at any one application time, the rates and amounts shall be limited based on the infiltration rate and water holding capacity of the application areas as described in § 83.404(d). In these instances the plan shall include the computations for the infiltration rates and water holding capacity of the various application areas, and these applications shall not be allowed to exceed either the determined infiltration rate or the water holding capacity of the application sites.**

**[(5)]** **(f)** Manure **[may]** **shall** 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 inactive open drinking water well, where surface water flow is toward the water well, unless the manure is mechanically incorporated within 24 hours of application.**

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

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

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

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

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

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

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

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

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

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

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

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

**ALTERNATIVE USES FOR EXCESS MANURE FOR**

**[VOLUNTEER OR FINANCIAL ASSISTANCE] VAO PLANS**

**§ 83.411. Alternative manure utilization plans.**

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

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

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

**(3) The alternative manure utilization method such as:**

**(i) Land application by known importers.**

**(ii) Transfer through a manure broker.**

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

**(iv) Marketing through an open advertising system.]**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) The planned season for the manure export.

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

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

**(e) If manure is to be exported for use off of a VAO existing on [effective date of the regulations] by using an open advertising system and the importers cannot be identified at planning time, the following shall apply:**

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

**(2) An operator may only utilize this method of exporting manure if the operator meets the manure broker requirements of § 83.411(b).**

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

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

**(1) If an importer receives less than the following amounts of manure from the VAO on an annual basis: 10 tons of solid poultry manure, 50 tons of solid non-poultry manure, or 25,000 gallons of liquid manure. In these instances, the plan shall list the name and**

**location of the importing operation, and when and how much manure will be exported to the importing operation, as well as the proposed usage of the imported manure.**

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

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

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

**(2) Land application of all exported manure shall also comply with all other applicable manure application setbacks under § 83.404 (relating to nutrient application procedures).**

## MANURE MANAGEMENT FOR [VOLUNTEER OR FINANCIAL ASSISTANCE] VAO PLANS

### § 83.421. Manure management.

(a) In the preparation of a plan, the nutrient management specialist **[, or specialist in conjunction with other individuals with nutrient runoff control expertise such as NRCS or conservation district personnel,]** shall **perform a site visit to** conduct a review of the adequacy of existing manure management practices to prevent surface water or groundwater pollution **[under normal climatic conditions for the location] from storm events up to and including a**

**25-year, 24-hour storm intensity. The specialist may confer with NRCS, conservation district staff or others with expertise with nutrient runoff control. This review shall be documented in the plan and shall identify those conditions and areas where nutrients directly discharge, or have the potential to directly discharge, into surface water as a result of a storm event up to and including a 25-year, 24-hour storm intensity, due to inadequate manure management practices. For purposes of this review, direct discharges are any flows of stormwater contaminated with manure to surface waters without prior filtration or other treatment, such as grassed filter strips.** Practices to be evaluated in this review include manure handling, collection, barnyard runoff control**[,]** **and** storage **[and spreading]** practices. Examples of inadequate manure management practices include the following:

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

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

(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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**dimensions and capacity of the proposed facility, and the location of the proposed facility shall be identified on a plan map.**

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

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

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

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

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

**[(d)]** **(g)** 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)]** (h) Information contained in other sections of the plan may be used by the specialist when addressing this section.

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

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

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

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

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

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

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

**(e) A BMP-specific contingency plan as required by § 83.461 (relating to minimum standards for the design, construction, location, operation, maintenance and removal from service of manure storage facilities) shall be included as an addendum to the emergency response plan.**

## STORMWATER [RUNOFF] CONTROL FOR [VOLUNTEER OR FINANCIAL ASSISTANCE] VAO PLANS

**§ 83.431. Stormwater [runoff] control.**

**[(a) [Field runoff control.]**

**[1]** (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 **[runoff]** stormwater control practices on **[fields,]** croplands, haylands and pastures included in the plan **to prevent surface and groundwater pollution. The specialist may confer with NRCS, conservation district staff or others with expertise with nutrient runoff** control. This review

shall be included in the plan and shall identify **[those]** critical runoff problem areas **[where nutrients directly discharge into surface water or groundwater]**.

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

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

**[(4)]** (d) BMPs listed in the plan to address critical runoff problem areas shall be **selected,** designed, installed, operated and maintained in accordance with the **practices and** standards contained in the ***Manure Management Manual*** **and the** *Pennsylvania Technical Guide.*

**[(5)]** **(e) The plan shall include a verification from the specialist developing the plan, indicating that a current Erosion and Sediment Control Plan, meeting the requirements of Chapter 102 (relating to erosion and sediment control), exists for all plowed or tilled croplands included in the plan. A current Conservation Plan may be used to meet this requirement, as allowed by Chapter 102. [Although an]** **The** **[e]**Erosion and **[s]**Sediment**[ation]** **[c]**Control **[p]**Plan **[, meeting the requirements of Chapter 102 (relating**

**to erosion and sediment control),]** is not required **to be submitted** as part of a **nutrient management** plan **[under the act, meeting]**. **Compliance with** the requirements of this section will not eliminate the operator's responsibility to comply with Chapter 102 or other relevant State laws or regulations relating to the control of erosion and sedimentation from **[earth moving] construction** activities **[such as agricultural plowing and tilling]**.

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

(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 ] VAO 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] VAOs

**§ 83.451. General recordkeeping requirements.**

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

**§ 83.452. Recordkeeping relating to application of nutrients.**

(a) An approved plan **[voluntarily]** developed for **[agricultural operations seeking the limited liability protection under § 83.206 (relating to limitation of liability)]** a VAO shall**[, at a minimum,]** be supported by the information required in **[this section and]** § 83.453 (relating to alternative manure utilization recordkeeping) **and § 83.454 (relating to exported manure information packets)**.

(b) The operator of **[an agricultural operation that develops a plan under the act]** **a VAO** shall keep the following accurate records of the land application of nutrients, crop yields and soil tests on the agricultural operation.

(1) Records of soil testing results shall be maintained consistent with **[§ 83.401(e)]** **§ 83.402(e)** (relating to determination of **[available nutrients]** **nutrients needed for crop production)**. **Soil testing is required once every 3 years for each crop management unit.**

(2) Records of manure testing results and testing of other nutrient sources shall be maintained consistent with § 83.401**[(b)(3)]** **(relating to determination of available nutrients)**. **Manure testing is required once every year for each manure group.**

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

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

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

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

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

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

(5) Annual manure production **figures for each manure group** **[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.]**

**(a) *Recordkeeping for manure exports.* The following recordkeeping requirements apply to manure exported off of the VAO:**

**(1) A manure export sheet shall be used for all manure transfers from VAOs.**

**(2) The Commission or delegated conservation district will make copies of the manure export sheet forms available to VAOs.**

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

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

**(i) The exporter is responsible for the completion of the manure export sheet, providing a copy to the importer and retaining a copy at the exporting operation.**

**(ii) When the exporter, or person working under the direction of the exporter such as an employee or a manure hauler/applicator, applies the manure to the land, the exporter is responsible for maintaining records of the actual application dates, application areas**

**(including the observation of any relevant setback restrictions), application methods, and application rates for the exported manure.**

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

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

**§ 83.454. Exported manure informational packets.**

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

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

**(1) The applicable sections of the *Manure Management Manual.***

**(2) A concise educational publication describing the key concepts of nutrient management.**

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

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

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

## MINIMUM STANDARDS FOR MANURE STORAGE FACILITIES ON [VOLUNTEER OR FINANCIAL ASSISTANCE OPERATIONS] VAOs

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

(a) The minimum standards contained in this section apply to new manure storage facilities constructed, and existing manure storage facilities expanded, as part of a plan developed **for a VAO [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] if** no longer used for the storage of manure, removed from service, **[to prevent the pollution of] in a manner that protects** surface water and groundwater **quality**, and **prevents**

the offsite migration of pollution, by meeting the standards contained in the ***Manure Management Manual*** **and the** *Pennsylvania Technical Guide*, except **[when]** if these standards conflict with this subchapter.

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

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

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

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

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

(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]** **if a facility** (except permanent stacking and compost facilities) **[are]** **is** located on slopes exceeding 8% or **a facility has** **[have]** a capacity of 1.5 million gallons or greater.

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

(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]** **if a facility** (except permanent stacking and compost facilities) **[are]** **is** located on slopes exceeding 8% or **[have]** **has** a capacity of 1.5 million gallons or greater.

(G) Within 300 feet of a property line, **[where these facilities]** **if a facility** (except permanent stacking and compost facilities) **[are]** **is** located on slopes exceeding 8%, **[where]** **and if** the slope is toward the property line, or **a facility has** **[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)]** **(vii)** The Commission or a delegated conservation district may waive the distance restrictions in subparagraphs **[(iv)]** **(v)**(A), (B) and **(F)** **[(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)]** **(v)** 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]** **described in** 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 ***Manure Management Manual*** **and the** *Pennsylvania Technical Guide.*

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

(c) The site specific design for the construction, expansion or major repair of a liquid or semisolid manure storage facility covered under the act shall be done or approved by an engineer registered in this Commonwealth. The engineer shall certify that the design complies with the applicable design standards described in the ***Manure Management Manual*** **and the** *Pennsylvania Technical Guide.* **At least 2 weeks prior to installation of the facility or the**

**repair, the registered engineer shall submit a verification (including a quality assurance inspection plan for construction) to the Commission or delegated conservation district documenting that the design, meeting the criteria established in the *Manure Management Manual* and the *Pennsylvania Technical Guide*, has been completed, and that any applicable setback requirements have been met.** The responsible engineer and construction contractor shall certify to the Commission or delegated conservation district that construction of the manure storage facility was completed according to the design and construction standards.

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

(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] VAOs

### § 83.471. Initial plan review and approval.

(a) Plans or plan amendments for **[agricultural operations other than CAOs]** VAOs may be submitted for initial review and approval to delegated conservation districts or alternatively to the Commission for agricultural operations located in counties not delegated 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]** a VAO and submitted to the Commission or delegated conservation district shall be deemed approved unless disapproved by the Commission or conservation district within 90 days of receipt of a complete plan or plan amendment. The notice of determination to **[modify or]** disapprove a plan or plan amendment shall be provided in writing to the operator submitting the **[same]** plan or plan amendment and shall include an explanation specifically stating the reasons for **[modification or]** disapproval. The Commission or delegated conservation district shall, within 10 days from the date of receipt of the plan or plan amendment, provide notice to the operator indicating **whether all of the required plan elements have been received [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]** **VAOs** **[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 n]**Nutrient application rates shall be **[balanced]** **developed** as described in § 83.403 (relating to determination of nutrient application rates) **and shall be implemented upon approval of the plan or plan amendment, as applicable**. The **[owner,]** operator **[or nutrient management specialist]** shall review the approved plan at least annually to ensure that this condition is met.

(c) At least every 3 years, the approved plan shall be reviewed by a **commercially or individually certified** nutrient management specialist. If the agricultural operation is still consistent with the approved plan **and the nutrient content and soil test values used in the plan have not significantly changed, and the accepted reference factors used in the plan have not changed since approval**, the specialist shall provide notice of this to the reviewing agency. A plan amendment shall be submitted to the reviewing agency in accordance with § 83.471(a) (relating to initial plan review and approval), if the agricultural operation has changed

from that described in the approved plan **[(see] , as required by** § 83.481 (relating to plan amendments)**[)]**.

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

## PLAN AMENDMENTS AND TRANSFERS FOR [VOLUNTEERS AND FINANCIAL ASSISTANCE RECIPIENTS] VAOs

**§ 83.481. Plan amendments.**

(a) **[For plans approved for non-CAOs as a condition for receiving financial assistance under the act or the Chesapeake Bay Nonpoint Source Pollution Abatement Program, or for volunteers seeking the limited liability protection under § 83.206 (relating to limitation of liability) a]** A plan amendment is required **[when] if** the operator of **[an agricultural operation] a VAO** expects to make significant changes in the management of nutrients from those contained in the approved plan. Those significant changes in the management of nutrients which would require a plan amendment are **[as follows] any one of the following**:

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

**associated fact sheets and manuals** [**the *Manure Management Manual]***, and adequate written justification has not been given for the inconsistency.

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

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

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

**(7) A change in excess manure utilization arrangements as described in the approved plan. No amendment is required to address the loss of an importer if the loss does not impair the operator's ability to properly manage the manure generated on the operation.**

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

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

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

(b) A plan amendment**[, as required in]** **under** subsection (a), shall be developed and certified by a nutrient management specialist and shall be submitted to the reviewing agency in accordance with § 83.471(a) (relating to initial plan review and approval).

**(c) Plan updates to address operational or computation changes other than those described in subsection (a) shall be developed and certified by a commercial or individual nutrient**

**management specialist and retained at the operation and submitted to the district for inclusion in the approved nutrient management plan.**

**§ 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] VAOs

**§ 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),]** VAOs 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)] (f) (relating to nutrient application procedures).

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

Pennsylvania Department of Environmental Protection

**Rachel Carson State Office Building**
**P.O. Box 2063**
**Harrisburg, PA 17105-2063**
July 28, 2004

**Policy Office** 717-783-8727

Mr. Robert E. Nyce, Executive Director
Independent Regulatory Review Commission
14th Floor, Harristown #2
333 Market Street
Harrisburg, PA 17120

RE: Proposed Rulemaking: Nutrient Management Regulations (#7-390)

Dear Mr. Nyce:

Enclosed is a copy of a proposed regulation for review and comment by the Independent Regulatory Review Commission pursuant to Section 5(a) of the Regulatory Review Act. This proposal is scheduled for publication as a proposed rulemaking in the *Pennsylvania Bulletin* on August 7, 2004, with a 90-day public comment period. The State Conservation Commission adopted this proposed regulation at its meeting of September 9, 2003.

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

The Department will provide the Commission with the assistance required to facilitate a thorough review of this proposal. Section 5(g) of the Regulatory Review Act provides that the Commission may, within 30 days after the close of the public comment period, convey to the agency any comments, recommendations and objections to the proposed regulation. The Department will consider any comments or suggestions made by the Commission, as well as the committees and public commentators received prior to final adoption the regulation.

For additional information, please contact Michele Tate or me at 783-8727.

Sincerely,

Marjorie L. Hughes
Regulatory Coordinator

Enclosures

**TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO THE REGULATORY REVIEW ACT**

I.D. NUMBER: 7-390

2004 JUL 28 PM 2:0

SUBJECT: Nutrient Management

AGENCY: DEPARTMENT OF ENVIRONMENTAL PROTECTION

**TYPE OF REGULATION**

X Proposed Regulation

Final Regulation

Final Regulation with Notice of Proposed Rulemaking Omitted

120-day Emergency Certification of the Attorney General

120-day Emergency Certification of the Governor

Delivery of Tolled Regulation
a. With Revisions b. Without Revisions

**FILING OF REGULATION**

| DATE | SIGNATURE | DESIGNATION |
|---|---|---|
| 7/28 | Judy Jeker | HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY |
| 1-28 | Robert M. Tomalis | SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY |
| | | INDEPENDENT REGULATORY REVIEW COMMISSION |
| | | ATTORNEY GENERAL (for Final Omitted only) |
| 07/28/04 | | LEGISLATIVE REFERENCE BUREAU (for Proposed only) |

May 24, 2004