

**Notice of Proposed Rulemaking
Department of Environmental Protection
Environmental Quality Board
(25 Pa. Code, Chapter 96)
Water Quality Standards Implementation**

Preamble

The Environmental Quality Board (Board) proposes to amend 25 Pa. Code, Chapter 96 (relating to Water Quality Standards Implementation) to read as set forth in Appendix A. The amendments would codify into regulation the Department’s existing guidance entitled Final Trading of Nutrient and Sediment Reduction Credits – Policy and Guidelines (No. 392-0900-001, December, 2006) as it relates to the Chesapeake Bay (“Nutrient Credit Trading Policy”). That policy provides a cost-effective means for facilities subject to meet new limits for nitrogen, phosphorus and sediment to meet those limits by working with other facilities and/or with nonpoint sources. It helps the Commonwealth achieve its Chesapeake Bay nutrient reduction goals from the agriculture sector, provides a source of revenue to farmers and other property owners while advancing the restoration and protection of the water quality of the Chesapeake Bay.

This proposal was adopted by the Board at its meeting of _____.

A. Effective Date

These amendments will go into effect upon publication in the *Pennsylvania Bulletin* as final rulemaking.

B. Contact Persons

For further information contact Ann Smith, Program Analyst, Water Planning Office, P.O. Box 2063, 2nd Floor, Rachel Carson State Office Building, Harrisburg, PA 17105-2063, (717) 772-4785, or Douglas Brennan, Assistant Director, Bureau of Regulatory Counsel, P.O. Box 2063, 9th Floor, Rachel Carson State Office Building, Harrisburg, PA 17105-2063, (717) 787-7060. 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 1-800-654-5984 (TDD users) or 1-800-654-5988 (voice users). This proposal is available electronically through the DEP Web site (<http://www.dep.state.pa.us>).

C. Statutory Authority

The proposed rulemaking is being made under the authority of the Pennsylvania Clean Streams Law (35 P.S. §§ 691.1 – 691.1001; the Federal Water Pollution Control Act (33 U.S.C.A. §§ 1251 - 1387); and 40 CFR Part 122.

D. Background and Purpose

The Chesapeake Bay is polluted from nutrients (and sediment) and in 2005 new water quality standards under the federal Clean Water Act to address this pollution came into effect. To meet these new requirements under federal law, the U.S. Environmental Protection Agency and the affected states developed a maximum nutrient load, or “cap load,” for each major tributary. As a result, approximately 200 municipal sewage treatment plants and others discharging nutrients to Pennsylvania’s Bay tributaries must cap those discharges or they will be in violation of the downstream water quality standards, under federal and state law.

In January 2006 the Department initiated an intensive stakeholder process related to these new legal requirements. First, it refocused and expanded the standing DEP Chesapeake Bay Advisory Committee, to include local government associations, the agricultural community, and multiple associations. This committee was tasked with discussing the wide variety of issues surrounding Pennsylvania’s compliance strategy and to consider various approaches to meeting the federally driven water quality obligations.

After receiving input through a series of meetings held over a nine month period, the Department developed a revised plan to address the new legal mandate. The plan included new permitting requirements for sewage treatment plants and other “point sources” governed by the federal National Pollutant Discharge Elimination System (NPDES), new regulations controlling agricultural run-off, and the Nutrient Credit Trading Policy.

The Nutrient Credit Trading Policy was actually one of several compliance alternatives provided to NPDES permittees required to reduce their effluent discharges, under the Department’s plan. The other compliance alternatives identified for NPDES permittees were: implementation of nutrient reduction treatment technology, retirement of existing on-lot septic systems, wastewater reuse and land application. Nutrient trading provides those sewage treatment plants with options that have the potential to reduce compliance costs substantially. For example, in 2008 Fairview Township decided to use credits to meet its nutrient reduction obligation, and in so doing announced a cost savings of approximately 75%. Mount Joy Borough Authority investigated costs of upgrading and found that by installing the first level of nitrogen treatment they could reduce nitrogen by about fifty percent for about \$8 per pound but in order to reach their cap loads an additional upgrade would increase the price to about \$12 per pound. Instead, Mount Joy contracted with a local farmer and invested in more than 900 acres of no-till agriculture to meet their permit cap at a cost of only \$3.81 for every pound reduced.

The Department’s nutrient credit trading program is built upon the core elements prescribed for any valid trading program. For example, credits can only be generated for nutrient reductions above and beyond those required for regulatory compliance. There are also caps on the total tradable credits for “nonpoint sources” at the excess level available in the watershed from best management practices beyond those needed to meet compliance goals.

Since the publication of the interim final policy and as of August 3, 2009, the Department has received 73 proposals that have been submitted for review to generate nutrient reduction credits in the Chesapeake Bay watershed, mostly but not exclusively by farmers. Of those, 45 have been approved, for a total of 1,651,336 nitrogen credits and 174,086 phosphorous credits. After subtracting the credits that have already been purchased or those that were generated in a previous compliance year, a total of 1,536,597 nitrogen credits and 171,541 phosphorous credits are available for sale.

The Department and its partners continue to seek enhancements to its nutrient trading program. For example, PENNVEST has been authorized by EPA as well as by the PENNVEST Board to invest up to \$50 million to facilitate the nutrient credit trading program. It recently approved a \$7 million loan to a technology provider for a project at a large dairy and poultry farm in Lancaster County. PENNVEST is also studying the possibility of providing an exchange role to facilitate the use of credits by sewage treatment plants. Further, the Department regularly meets with stakeholders to improve the trading program.

The Department has consulted with a number of boards and committees throughout the process of developing the Nutrient Credit Trading Policy, and most recently, this proposed rulemaking. The Department has also presented the proposed rulemaking to the Water Resources Advisory Committee (WRAC), once in June and again in July with a revised draft in response to comments. The WRAC endorsed, with provisions, the proposed rulemaking package at their July meeting and it was presented to the Agricultural Advisory Board (AAB) at the meeting on August 19th where very few comments or concerns were raised. The proposed rulemaking and preamble reflect the comments made by the WRAC during the July meeting. At the request of AAB, the Department will provide an additional presentation during the public comment period.

EPA supports credit trading generally, having published a national policy in that regard in 2003, and a detailed NPDES permit writer's manual on the subject in 2007. The Department has conferred with EPA on this program for the past several years, and EPA agrees with the approach. There are no federal regulations for nutrient credit trading, although there are several air quality-related trading programs administered by EPA and other states, including Pennsylvania.

Pennsylvania has been leading the way nationally in developing its nutrient trading program and it is one of the first programs in the country to have both nonpoint sources and point sources utilizing a nutrient credit trading program. Harnessing market forces can be an effective way to achieve environmental regulatory goals at less expense than traditional command and control regulations. Market-based programs such as trading provide incentives for entities to create credits by going beyond any statutory or regulatory obligations.

The proposed rulemaking will provide clear and certain standards for nutrient credit trading in Pennsylvania and thereby support the Department's efforts to implement its nutrient credit trading program.

E. Summary of Regulatory Requirements

Definitions (§96.8a). The proposed rulemaking adds a number of definitions to Chapter 96 to clarify various new terms added by the proposed rulemaking. Most of the definitions were taken from the Nutrient Credit Trading Policy, with slight revision in some cases based on the Department's experience in implementing the program since the policy was finalized, and also based on comments from stakeholders.

General provisions (§§ 96.8b, 96.8h, 96.8j). The proposed rulemaking contains several sections with over-arching provisions. § 96.8b sets forth the core concepts and basic requirements of the trading program. § 96.8h contains provisions regarding the interaction of this section and important provisions elsewhere in this Title regarding protection of water quality. § 96.8j makes it clear that this proposed rulemaking is not intended to foreclose the use of credits or offsets in other contexts outside of their use to comply with the nutrient and sediment cap loads for the Chesapeake Bay.

Methodology for calculating credits and offsets (§ 96.8c). Much of the methodology for establishing the water quality standards for the Chesapeake Bay, and determining effectiveness of various activities to meet those standards, is based on scientific work done by EPA. This includes the use of several complex models and the scientific research related to them. Section 96.8c identifies those models and that research, and establishes them as a basis for the Department's decisions regarding, among other things, the amount of reductions (and therefore credits) to assign to a given pollutant reduction activity. These models and the related research are an on-going effort and the language of this subsection allows for the use of subsequent versions of the models and more current research.

An important provision in this subsection is § 96.8c(b), which allows the Department to use pollutant removal efficiencies, edge of segment ratios and delivery ratios that are approved by EPA, in calculating credits. The removal efficiencies represent average nutrient and sediment reduction performance capabilities for various "best management practices" ("BMPs") at farms. They undergo extensive peer review by a technical review team managed by the EPA Chesapeake Bay Program. Any recommendations are then reviewed by the EPA Chesapeake Bay Program committee and subcommittee process. These efficiencies change with the science of the models and related research. Current BMP efficiencies are accessible on the Department's Nutrient Credit Trading website: (<http://www.dep.state.pa.us/river/Nutrient%20Trading.htm>).

The edge of segment and delivery ratios are used to identify the fate and transport of nutrients and sediment from their initial creation at a certain location to the Bay. For example, a pound of nitrogen reduced to cropland in the upper reaches of the Susquehanna has much less impact than a pound reduced near the border with Maryland. The delivery ratio accounts for that difference.

At the WRAC meeting in July, the Department was asked to solicit comment on the application of delivery ratios to permit limits, when used in the trading program.

Therefore, the Department is soliciting comments on whether delivery ratios should be applied to permit limits when trading is chosen as the compliance option.

Eligibility requirements (§ 96.8d). This subsection describes the various requirements for a source to be able to generate credits for use under the proposed regulation. There are two components. First, the generator must meet “baseline” requirements, which essentially are the legal requirements that apply to that operation.

The second requirement is “threshold.” This requirement is defined as either a 100 foot manure set back, a 35 foot vegetative buffer or a 20% adjustment made to the overall reduction. It provides an added level of nutrient and sediment reductions that would not necessarily be accomplished without the financial incentives of trading. Threshold therefore adds to the nutrient reduction benefits for the Bay, especially from the agriculture sector.

Therefore, only after demonstrating (1) compliance with the applicable legal requirements (baseline) and (2) achieving an additional set of pollutant reductions (threshold), can a person begin to generate credits or offsets (by further reductions) under this proposed rulemaking. The Department has received numerous proposals for the generation of credits that achieve these requirements and has approved many of them.

Certification, verification and registration (§96.8e, §96.8f.). These subsections describe the procedural requirement that the Department has in place to ensure that credits and offsets are calculated correctly and accomplish pollutant reductions.

The first step is “certification,” which is typically done in advance of any pollutant reduction activities. In reviewing these requests, the Department evaluates detailed requests for approval of credit and offset-generation activities, for the purpose of assigning a specific number of credits to the activity. A person may want to have their proposed pollutant activities certified in order to obtain from the Department the number of credits or offsets which can be expected prior to completing the activity.

The number of credits assigned would have applied all appropriate adjustments such as the reserve and delivery ratios with particular attention being paid to the requirements of subsection §96.8c (methodology). The result is a letter from the Department indicating the amount and types of certified credits or offsets, which in the case of credits the generator can then use to market them.

A second important procedural requirement and a key component of the certification decision is a review of the “verification” plan submitted by the proponent of the credits or offsets, followed by actual verification. This plan is required by § 96.8e(d), and it is also a condition of “registration,” the final step, under § 96.8f(b)(3). Verification can take a number of forms, but it must demonstrate that the pollutant reduction activities were implemented as described in the proposal that was certified. The Department may also conduct other verification activities, in addition to those in the plan submitted by the generator, under § 96.8f(b)(4).

The final procedural step in these subsections is “registration,” under § 96.8f. This is the Department’s accounting mechanism to track verified credits and offsets before they are used to comply with the NPDES permit effluent limits for the Bay.

The Department will not register credits or offsets for persons who demonstrate a lack of ability or intention to comply with the requirements of this section, Department regulations or other relevant requirements. See, § 96.8d(d), §96.8d(f), § 96.8f(c).

Use of Credits and Offsets (§ 96.8g). The provisions of the proposed rulemaking described above apply to persons generating credits and offsets. This section addresses the obligations of persons who use them to meet permit requirements. This underscores that the use of credits and offsets in this proposed regulation only applies to the nutrient and sediment effluent limits in NPDES permits for the purposes of restoration and protection of the water quality of the Chesapeake Bay. See, § 96.8g(a), § 96.8g(b). This language is not intended to limit the Department’s existing authority to allow the use of credits or offsets in other contexts. See, § 96.8j.

Credit and offset failure is addressed in § 96.8g(e). There are several factors that come into play with this issue. First, it is important that credits and offsets generate real reduction in pollutant loads delivered to the Bay. In addition, the one sector most likely to purchase credits, the sewage treatment plant operators, has expressed concern over purchasing credits and then later being subject to enforcement action by the Department if the credits are not accepted due to credit failure. This subsection seeks to address both concerns.

Two key components of this section are “the Department determines that replacement credits will be available,” and “the existence of an approved legal mechanism that is enforceable by the Department.” Examples of these are the use of the credit reserve, a dedicated credit reserve for a particular project, financial guarantees under legal instruments such as escrows, and a Clean Streams Law “credit generation” permit.

Water quality and TMDLs (§ 96.8h). This proposed rulemaking is aimed at protecting and restoring the water quality of the Chesapeake Bay. However, there may be local water quality issues that can affect a decision on a credit or offset proposal. This would be most likely if the receiving waterbody at the location where the credits or offsets will be generated is listed as “impaired” through the Department’s formal listing process under the Clean Water Act. There are also local anti-degradation requirements that are part of Pennsylvania’s water quality regulations. This section makes it clear that those and other existing regulatory requirements take precedence over any decisions made under this proposed rulemaking.

Public Participation (§ 96.8i). The Department is committed to a transparent process in the implementation of its trading program. Therefore, the proposed rulemaking would codify the current process of publishing notice in the *Pennsylvania Bulletin*

whenever (1) a credit or offset proposal is submitted and is administratively complete, and (2) whenever the Department makes a final decision on certification.

F. Benefits, Costs and Compliance

Benefits

Harnessing market forces can be an effective way to achieve environmental regulatory goals at less expense than traditional command and control regulations. Market-based programs such as trading provide incentives for entities to create credits by going beyond any statutory or regulatory obligations. The proposed rulemaking will provide clear and certain standards for nutrient credit trading in Pennsylvania and thereby support the Department's efforts to implement its nutrient credit trading program.

Compliance Costs

The proposed rulemaking does not create any new compliance requirements. It is essentially a voluntary program that provides economic incentives for increased pollutant reductions beyond those required by law now.

Compliance Assistance Plan

While there are no new compliance requirements in this proposed rulemaking, the Department has an active and comprehensive outreach and education effort. For example, the Department meets with a core group of stakeholders periodically to update them on recent developments and to discuss ways to improve the program. Department staff will continue to attend public meetings of various kinds to describe the program and assist with its use by interested persons.

Paperwork Requirements

There are no paperwork requirements as that term is normally used, because this is a voluntary program. The proposed rulemaking does contain requirements for submittal of certain information, as seen in § 96.8e. However, the cost of these requirements would normally be returned through revenue earned in the sale of the credits, or avoidance of more expensive compliance methods if offsets were not used.

G. Pollution Prevention

The Federal Pollution Prevention Act of 1990 established a national policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally-friendly materials, more efficient use of raw materials, and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in

significant cost savings to facilities that permanently achieve or move beyond compliance. This rulemaking is essentially a pollution prevention incentive program, as described previously in this Preamble.

H. Sunset Review

This regulation when final will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulation effectively fulfills the goals for which it was intended.

I. Regulatory Review

Under Section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on (blank), the Department submitted a copy of these proposed amendments to the Independent Regulatory Review Commission (IRRC) and the Chairpersons of the House and Senate Environmental Resources and Energy Committees. In addition to submitting the proposed amendments, the Department has provided IRRC and the Committees with a copy of a detailed regulatory analysis form prepared by the Department. A copy of this material is available to the public upon request.

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

J. Public Comments

Written Comments - Interested persons are invited to submit comments, suggestions, or objections regarding the proposed regulation to the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Board by (blank) (within 30 days of publication in the *Pennsylvania Bulletin*). Interested persons may also submit a summary of their comments to the Board. The summary may not exceed one page in length and must also be received by (blank) (within 30 days following publication in the *Pennsylvania Bulletin*). The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final regulation will be considered.

Electronic Comments - Comments may be submitted electronically to the Board at RegComments@state.pa.us and must also be received by the Board by (date). A subject heading of the proposal and a return name and address must be included in each transmission.

BY:

JOHN HANGER
Chairperson
Environmental
Quality Board